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CHARLES H ASHDOWN



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EXCERPTS FROM PREFACE

There is no reason why a book dealing with antiquarian subjects should be written in the dry-as-dust method; that it should be clear stands to reason; that it should be as complete as possible is a justification of its being; but beyond these it is eminently necessary that it should be interesting.

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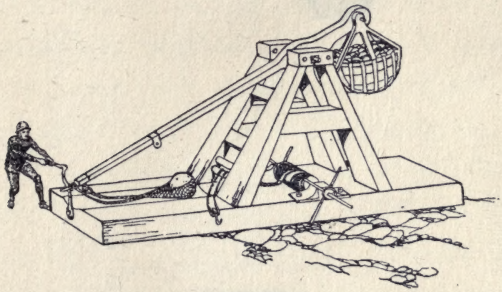
BODIAM CASTLE, SUSSEX.

BRITISH CASTLES

BY

CHARLES H. ASHDOWN

CONTAINING 32 FULL-PAGE ILLUSTRATIONS IN COLOUR
AND A NUMBER OF PLANS AND DIAGRAMS IN THE TEXT



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PREFACE

CONSIDERING the richness and variety of both technical and popular literature upon Castles generally, it may appear superfluous to send forth another book upon the same subject, and, if investigation had been at a standstill or barren in results during the past decade, criticism would be justified. But much has come to light upon this interesting subject which undoubtedly revolutionises pre-existing ideas, both as to primitive forms of castellation and of those in historic periods. The allocation of the former to approximately definite epochs, and also of two great and important phases of the latter to well-defined periods, are the salient features of late investigations. Unfortunately the ordinary reader is debarred from becoming intimate with these changes of thought, inasmuch

as newly acquired discoveries are generally to be found only in the transactions of learned Societies or in disconnected brochures not readily available. To bring these ideas to a focus and present them in such a form that the Man in the Street—undoubtedly a member of the preponderating majority—may readily comprehend them is one of the aims of the writer, while another is to suggest to the ordinary observer that the earthworks in our islands entitle primitive man to be considered with much more respect and consideration than has hitherto been afforded him.

The monumental work of Mr. T. G. Clark, *Mediæval Military Architecture*, has had no formidable rival since its appearance, but unfortunately it must now be read with care since much of the matter is obsolete. The distinction between the Saxon *burh* and the primitive type of castle thrown up by the early Norman invaders was not apparent at the time the work appeared, and consequently many scores of castellated works are assigned to incorrect periods. This had the effect of making

the chronology of the Rectangular Keep incorrect. Unhappily *The History of the Art of War* by Oman followed Clark's lead and with, of course, the same result. Mr. J. H. Round in his *Geoffrey de Mandeville* appears to have been one of the first, if not the first, to differentiate between the *turris* and the *castellum* (*i.e.* the Keep and the Ward) of medieval writers, who were proverbially loose with respect to their employment of technical terms. Excellent work also in this respect has been carried out by Mrs. E. Armitage, who, by the process of practically investigating in detail some of the defences mentioned in Domesday Book, has been able to definitely assign the Motte and Bailey type to the early Norman Period. In the recently issued *Victoria History of the Counties of England* the effect of these discoveries is discernible in those parts relating to castellation, which very carefully correct the errors prevailing in former standard and in local topographical works. With regard to Earthworks, the invaluable investigations carried out by "The Committee upon Ancient Earthworks and Fortified Enclosures,"

acting in co-operation with the Society of Antiquaries, has resulted in a flood of light being thrown upon these interesting remains, so that the old allocation to British, Roman, and Danish influence, so arbitrarily insisted upon in former times according to the contour of the earthwork in question, no longer subsists, or only as far as circumstances justify the nomenclature. No generally available work is to hand dealing with these subjects in a non-technical manner, and it may be hoped that this endeavour will help to fill the interregnum between the work of Clark and a future equally monumental tome.

The thanks of the Author are herewith gratefully tendered to the Congress of Archæological Societies of 1903 for permission to make use of the plans of Earthworks issued in their "Scheme for Recording Ancient Defensive Earthworks and Fortified Enclosures," and also to Mr. Cecil C. Brewer for the plans of various floors in Hedingham Keep.

CHARLES H. ASHDOWN.

St. Albans.

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This gigantic earthwork looms darkly in the distance, with indications upon its broken outline of the enormous mounds and fosses which render it one of the most impressive examples of its class. As a work of Neolithic man it commands attention, both by reason of the vastness of its plan and the skill shown in the design.

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The great Keep dominates the view, with the buildings of its fore-court at the base, while below are seen the towers and massive defences of the formidable entrance to the Castle. It is one of the most impressive piles to be seen in the British Isles, and never fails to impress the foreigner when approaching it from the coast of France.

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by a moat and a deep dry ditch. The famous Household Book of Henry Percy, written soon after the country settled down after the Wars of the Roses, reveals elaborate details of the life in this Castle. The illustration shows how a castle built on level ground is able to look over a very extended area from its battlements.

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Tantallon Castle stands upon a bold spur of rock south of the Firth of Forth. It is a magnificent example of a Quadrangular Castle, surrounded upon three sides by the waters of the North Sea, and defended upon the remaining side by gigantic walls flanked by the Keep, and also a deep ditch.

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BRITISH CASTLES

CHAPTER I

NATURAL FORTRESSES STRENGTHENED

MAN is essentially a pugilistic animal and experiences a keen sense of delight in hunting all objects of the chase, ferocious or otherwise, but the keenest undoubtedly when upon the track of the grandest of all game—man. But at the same time though willing to inflict injury he invariably does so at the minimum of risk to himself, deeming the preservation of his own life, the greatest of the gifts that Nature has bestowed upon him, of the first importance. Thus it is conceivable that after the selection of a stone or the fabrication of a club by primitive man he naturally proceeded to make a protection for himself to counteract the effect of those weapons when wielded by others, and the shield would follow as a logical sequence. The shield was to all intents and purposes a movable castle, since

it afforded him the means of causing the greatest amount of annoyance to his enemy, while at the same time furnishing the maximum means of protection to himself; a definition which is appropriate to the first and latest type of feudal castle. As a non-movable protection he would soon recognise the advantages afforded by a tree, a rock, a fold in the ground; and the efficacy of these natural defences would suggest artificial examples where they were non-existent.

Hence the earthwork and the parapet of rock, singly or combined, may be regarded as the first of all castellation, with an origin so remote as to be practically coeval with man's first appearance upon earth. These simple means of defence are found in every country occupied by primitive races; in America they are numerous and undoubtedly point to a high antiquity, and the same holds good in many parts of Asia and Europe. In the British Isles we have a richer collection probably than can be found in any other portion of the globe, for in the habitable districts hardly a square mile exists without some indication of disturbance of the soil due in the majority of cases to some work of a defensive character.

Earthworks are of such a varied nature, with

so many differences of contrast alike as regards shape, elevation and area, that to the ordinary observer any classification seems impossible, and practically it is only when descriptions and plans of the whole are aggregated for selection that they fall under different headings by presenting essential features common to a class. Hence in late years a system of differentiation has been evolved, and the allocation of an earthwork to a definite class is now possible. To the antiquary this is a source of keen satisfaction, and it is hoped that to the ordinary observer it may prove one of equal interest.

It should be borne in mind that earthworks of great antiquity are found only in those districts and localities where man could delve with his primitive appliances, and thus a classification presents itself at once in a contradistinction between the Western and Central parts of England compared with the Southern and Eastern. It is obvious that no primitive race, with their crude appliances, could dig into Cambrian, Silurian, or Carboniferous rock in order to entrench themselves, and that in those localities the breastwork would necessarily be paramount; and that entrenching would only be possible where an

accumulation of detritus or alluvium existed, that is to say, in the valleys. So that, broadly speaking, the parapet prevails in Wales and the Midland counties and the ditch in the remaining portions. Those districts, reaching approximately from Dorsetshire to Yorkshire and belonging to the Cretaceous formation, would therefore roughly divide the country into two portions—the fosse prevailing to the east of it, and the breastwork to the west.

Another fact is apparent when dealing with this subject: the earthwork is much more durable than any other form of castrametation, in fact it is almost indestructible so far as meteoric agencies are concerned, whereas the parapet suffers not only from disintegration by the weathering influences of rain, frost, wind, and heat, but also from the tendency to lose its original shape through having no natural or artificial coherence between the separate parts. Thus undoubted examples of prehistoric ramparts are comparatively rare when compared with the wealth of existent earthworks.

It must be borne in mind that the study of the earthwork is the alphabet to that of castellation, and that the evolution of the latter cannot be efficiently comprehended without an intelligent

appreciation of the former. So far as classification of earthworks has been made to the present time, the following table represents the general mode of procedure, and under one or other of its separate headings the whole of the earthworks, so far as our knowledge extends at the time of writing, may be allocated.

Classification of Earthworks

1. *Natural Fortresses strengthened.* This refers to fortresses partly inaccessible by reason of precipices, cliffs, or water, additionally defended by artificial banks or walls.

2. *Fortified Hill-Tops strengthened.* This includes fortresses situated on hill-tops, with artificial defences adapted to the natural configuration of the ground, or to those which are less dependent on the natural slopes.

3. *Simple Artificial Enclosures*, including rectangular or other forms, and all the fortifications and towns of the Romano-British period.

4. *The Mount and Fosse.*

5. *The Mount and Bailey*, consisting of natural or artificial mounds with one or more courts attached.

6. *Homestead Moats.*

7. *Homestead Moats developed,* referring to enclosures similar to No. 6 but augmented by supplementary defences.

8. *Protected Village Sites.*

Class I.—Natural Fortresses strengthened.

This division may very readily be subdivided into three parts dealing with natural fortresses according to the topographical characteristics as follows :

(*a*) Promontory forts, or cliff castles both upon the coasts and inland.

(*b*) Those depending upon rivers, woods, marshes, etc. for efficiency.

(*c*) Plateau forts.

(*a*) *Promontory Forts.*—This type of fort is prehistoric as a rule and not characterised by an excess of variation. No distinctive uniformity can be traced, it is true, but special features may be discovered in almost every example of the class. It is only natural that primitive man should seize upon any spot which promised the minimum of labour to adapt it for his purpose of protection, hence distinguishing features may be

discerned in almost every case, depending upon the presence of a precipice, slope, bog, wood, chasm, marsh, etc. The description of a few of these fortresses will sufficiently illustrate the point.

Trevalgue Head, one mile north-east of New Quay, is practically an island, being cut off from the mainland by a chasm through which the tide flows, thus presenting a formidable obstacle 20 feet wide in places. In order to strengthen this natural obstruction many lines of entrenchments have been thrown up, both upon the island and the mainland. The presence of quantities of flint chippings sufficiently proves that this fort was the residence of Neolithic man, probably the descendant of local Palæolithic ancestors.

As the terms "Stone Age," "Bronze Age," "Iron Age" do not convey any idea of date to the great majority of people, it may be advisable to mention that the Stone Age approximately terminated about 3000 B.C. upon the Continent, and 1500 B.C. in the British Isles, when the Bronze Age is supposed to have commenced. These dates are of course entirely conjectural. The Iron Age commenced in Britain about 400 B.C.

The general idea of a cliff castle may be

gathered from the foregoing description of Trevalgue; there are many examples to be found in our Islands, and similar ones occur in Brittany. That they are of ancient British origin is suggested by the fact that they invariably occur in a district where cromlechs, stone circles, menhirs, and other Celtic remains are to be found.

Treryn Castle, about three miles from St. Buryan, contains the famous Logan stone. The fort is a gigantic mass of granite, nearly 250 feet in height, separated from the mainland by a triple row of formidable entrenchments, still 4 or 5 yards in height. This fort is probably the finest to be found in Cornwall.

At *St. David's Head* is a cliff castle called *Clawll y Milwyr*, where a small peninsula has been converted into a formidable fortress by the erection of a great stone wall about 12 feet in thickness and still some 15 or more feet in height. The only method of approaching the enclosed space is by a narrow entrance at the end of the wall. A fosse is associated with the defence in question, and several other subsidiary walls and fosses are found. Excavation has proved that the formation of the castle occurred in the early Iron Age.



MAIDEN CASTLE, DORSETSHIRE.

Old Castle Head, Manorbier, in Pembrokeshire, may be cited as a good example of a cliff castle, and *Dinas*, four miles from Fishguard, affords another, where a natural crevasse has been carefully scarped in order to separate a headland from the mainland. The examples given have been taken from South Wales and the Cornish peninsula, where for obvious reasons less probability of disturbance during later periods has occurred. Ideal spots like Portland are to be found in the British Isles, but the operations of man in quarrying, building, etc. have probably destroyed all traces of defences erected by the primitive inhabitants.

Clifton Camps, three in number, lying on either side of the Avon, afford us examples of cliff castles remote from the sea. The projecting land jutting out into the loops of the winding river has in each case been protected by lines of trenches.

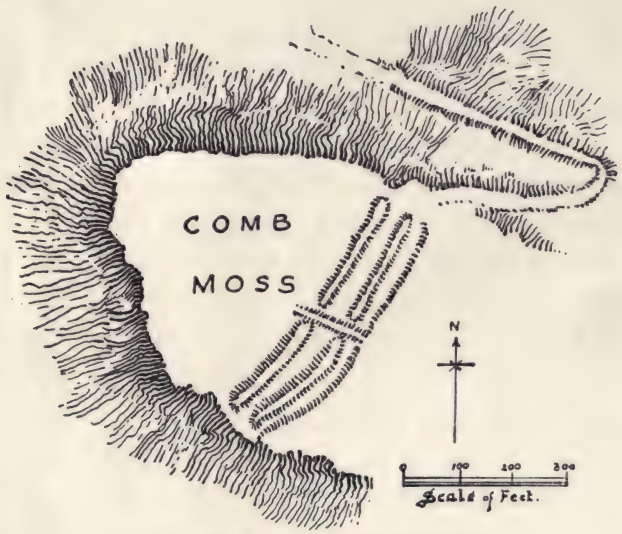
It can hardly be supposed that cliff castles generally were continuously occupied, because as a rule the area is limited, and could not afford sustenance for flocks and herds. Neither do they boast the possession of the indispensable well or spring in the majority of cases. Simplicity in

plan is their chief feature, and generally the fosse defending them is single, rarely double, and practically never treble. They probably afforded the last resort when hard pressed by the enemy; abandoning flocks and herds and thinking only of life and limb, the refugees could make a last stand within them, and, if fortune still proved adverse, could lower themselves down the steep faces of the cliffs, and trust to the mercy of the waters.

(*b*) Another class of fortresses falling under the same heading are those which depended upon woods, marshes, rivers, and similar natural defences for their efficiency.

The *Dyke Hills* at Dorchester, in Oxfordshire, undoubtedly formed at one time a safe haven of refuge, being almost surrounded by swamps forming a most effective defence. At the present time, however, these have disappeared owing to the general lowering of the water-level throughout England, by drainage, locks, weirs, etc., and they consequently give no indication of former efficiency. Two great fosses may be traced reaching from the Thame to the Thames, thus cutting off a piece of land and entirely defending it by means of water.

The *Isle of Avalon*, near Glastonbury, is essentially a peninsula, rising from the midst of a marsh with a series of aggers and accompanying dykes carried across the isthmus.



COMB MOSS, DERBYSHIRE.

(*c*) *Plateau Forts.—Comb Moss.* One of the finest examples of this division is Comb Moss, which is situated near Chapel-en-le-Frith in the vicinity of Derby, and at about 1600 feet above the level of the sea. Its mission is so obvious that the name of " The Castle " is applied to it

locally. It is roughly triangular in shape, and upon two sides precipitous slopes occur, which descend for nearly 500 feet and offer magnificent protection. The third side leads out upon a fairly level plateau, and here a double rampart and fosse has been made, completely closing the entrance with the exception of a narrow portion at the north-east side upon the very edge of the precipice, forming a most dangerous entry and consequently could be easily defended by a small number. There is an opening in the centre of the ramparts which is probably of later date, conjecturally Roman. An ancient plan shows a spring in the open space, but it does not appear at the present time. A rough wall was constructed round the edges of the precipices to confine sheep, but the original fortress was doubtless defended by a thick and massive rampart, there being no lack of material for such a protection, while the usual timber and stone breastwork would crown it.

CHAPTER II

FORTIFIED HILL-TOPS

THIS class of fortress is illustrated by numerous examples in the British Isles, many of which possess a very high order of merit. Class I. is generally found associated with coast line or rivers with precipitous banks; Class II. deals almost entirely with inland elevations which, while having some natural advantages in the way of steep ground or other defences of an inaccessible character, rely chiefly upon the artificial additions which have been made to the natural ones. With such a wealth of illustration it is somewhat difficult to select examples, but those described may perhaps be typical of every variety to be found in the kingdom. These camps of the plateau type were the commonest prevailing before the Norman Conquest, and for every great fortress like Cissbury, Maiden Castle,

Dolebury, or Bradbury there were hundreds of smaller examples.

These latter were, as a rule, much more liable to destruction by the plough, being slightly constructed and generally at no great elevation above the mean level of the land; the farmer, ever in search of good rich earth, turned with avidity to the great banks of loose soil placed ready to hand, and hence the destruction of small camps has been excessive. The great fortresses, with their steep scarps, have defied the ploughman, and to this we may ascribe the excellent preservation they generally present.

These contour forts are undoubtedly an advance upon the earlier promontory type and show an adaptation to the requirements of advancing civilisation, pointing to coalescence and centralisation of hitherto-divided communities, the protection of a settled area, and the guarding of trade-routes. Hence they indicate the presence of larger numbers and the possession of greater wealth.

Hembury Fort, Honiton.—This is by far the most wonderful example of the class to be found in Devonshire. It stands at a height of nearly 900 feet above sea-level and encloses a space of

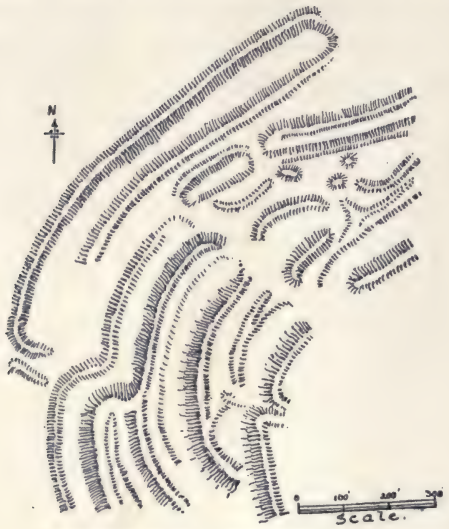
approximately 8 acres in extent. Double valla, and their accompanying fosses, surround the whole camp, the crest of the inner vallum averaging from 50 to 60 feet above the bed of its fosse. To these formidable defences a third vallum has been added, surrounding it upon every side except the east where it was deemed unnecessary. It is prehistoric and probably British, but up to the present time has not been excavated.

Ham Hill in the south-east part of Somersetshire is a high mass of rock standing detached from the neighbouring hills. The wonderful trenches, too numerous to mention in detail, show a very high order of military skill in fortification, and this is the more remarkable when we discover that Neolithic man was probably answerable for their construction, although the fort has been subsequently occupied by men of the Bronze Age, and also by the Romans.

South Cadbury lies five miles north of Sherborne. It is a huge and extremely formidable fortress standing at a height of over 500 feet above sea-level, and possessing no less than four lines of massive ramparts, steeply scarped, some of them even penetrating into the hard oolitic

rock. There are two entrances into the large space enclosed by the ramparts, and in each case protective mounds have been erected defending them.

Maiden Castle, about two miles from Dorchester



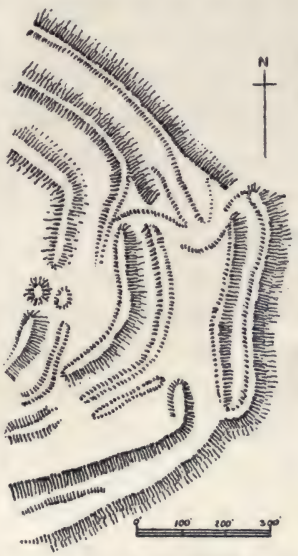
MAIDEN CASTLE, WEST ENTRANCE.

(Dorset), easily holds the premier place among the fortified camps of Great Britain, not only on account of its vast extent and the cyclopean character of its works, but also by reason of the marvellous military ingenuity displayed in its construction. Our general conception of the



PEVENSEY CASTLE, SUSSEX.

intellectual calibre of primitive man forcibly undergoes an alteration when contemplating the colossal schemes which his brain was capable of producing and his hand had the power of carrying into effect.



MAIDEN CASTLE, EAST ENTRANCE.

The area enclosed is no less than 45 acres, while the whole fort occupies a space of 115 acres. The circumference of this vast work measures one and a half miles, and three enormous valla and fosses stretch this distance; in many places the crest of a vallum above the fosse beneath it amounts to 60 feet. But perhaps our chief admiration is evoked by the complex arrangement, by means of which the two entrances into the fort are protected. A glance at the plans illustrating these will at once show that fortified mounds and bastions of the most complicated forms are placed so as to impede the progress of stormers, and there can

be no doubt that every means of protection known at the time were interposed between them and the besieged.

And here perhaps we may mention that the defences of an ancient earthwork can hardly be judged adequately at the present time without imagining the subsidiary structures which once crowned the works. These auxiliary aids cannot with certainty be described, because of the perishable character which generally signalised them, and the very meagre references which occur in the most ancient of our writers. It is generally accepted by authorities upon the subject that some stockade or other defence was invariably added to the summit of a rampart, and that this depended in character upon the nature of the country. In districts where stone was abundant, uncemented walls of large blocks were erected, generally with battering surfaces, the hollow portion between the two faces being filled up with earth or rubble as in Fig. 1. More primitive still would be the single wall with a bank of retaining earth behind it for support (Fig. 2), while more complicated would be one strengthened by a central core of masonry (Fig. 3). Remains of these walls have been found in

various places still *in situ*. It is quite possible that a palisade of sharpened stakes or of wattle surmounted these stone walls, thus still further adding to their efficiency. In a " soft " country, where only earth or chalk is available, timber would naturally take the place of stone. The

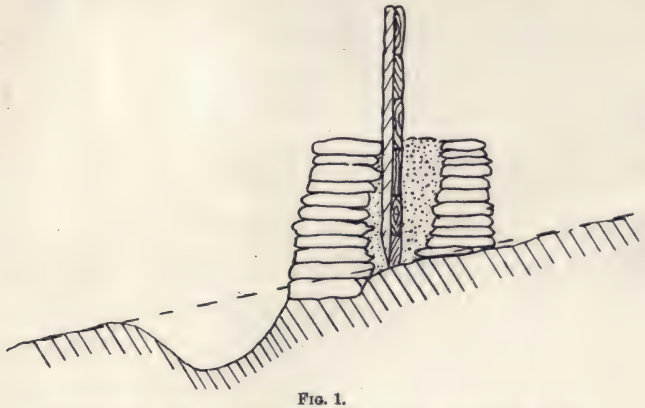


FIG. 1.

STOCKADE OF STONE AND RUBBLE, WITH PALISADE OF WOOD.

Gallic defences of this nature, which gave so much trouble to Caesar's legions, appear to have been made of tree-trunks lying side by side upon the ground with the second course of trunks superposed at right angles, the whole of the interstices being filled with stones and earth tightly rammed (Fig. 4). It will readily be perceived that a rampart constructed of alternate courses similar

to this, and approximately 10 feet in thickness and of considerable height, would be quite im-

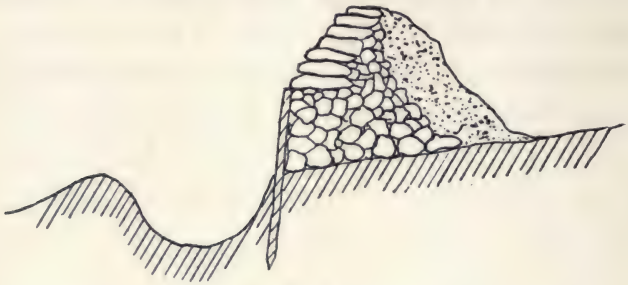


FIG. 2.

SIMPLE STOCKADE OF STONE AND EARTH, RETAINED BY WOODEN STAKES.

pervious to the missile weapons of the period, and indestructible by fire, even if the assailants

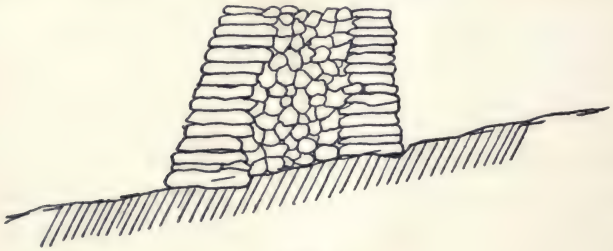


FIG. 3.

STONE STOCKADE, WITH INNER CORE OF MASONRY.

succeeded in filling up the deep vallum below the base of the wall with combustible materials. Whether this method of the utilisation of timber

for barricades was ever introduced into the British Isles for strengthening valla we have no means of ascertaining, owing to the perishable nature of the defence, but considering that the ancient Britons were of undoubted Celtic origin,

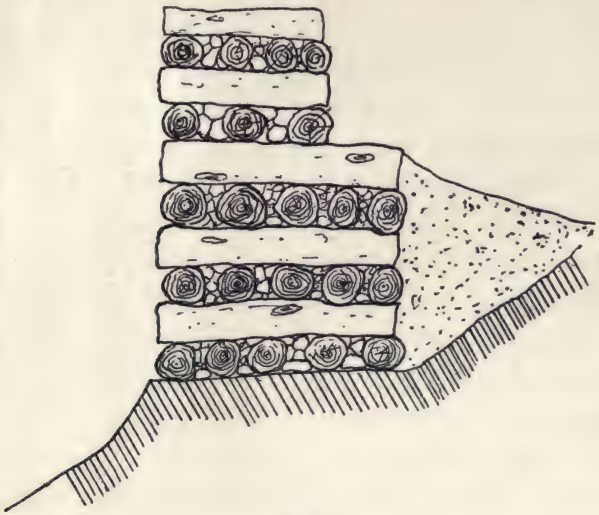


FIG. 4.

WOODEN PALISADE OF TREE-TRUNKS, STRENGTHENED WITH EARTH.

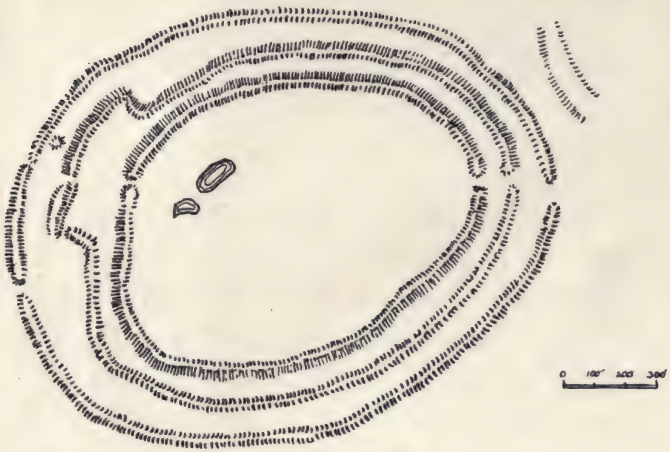
we are perhaps justified in assuming it. On the other hand, a row of thick vertical planks driven deeply into the soil and placed closely together upon the summit of a rampart would prove a very formidable obstacle after surmounting 60

feet of steep escarpment under a hail of missiles. The small mounds so often placed as defences near the entrances of fortified hill-tops were clearly intended for a ring of palisades upon their summits, and isolated bastions similarly placed were doubtless treated in the same manner.

There are no less than five lines of defence upon the south and south-east of Maiden Castle, and a feature of the work is the large amount of room provided upon the summits of the valla to afford accommodation for great bodies of defenders to stand and use their weapons.

Badbury Rings, four miles N.W. of Wimborne. —This may be classed among the greater hill fortresses inasmuch as it encloses a space of 18 acres and is furnished with three valla and their accompanying ditches. The scarps are in places very steep and 40 feet above the fosses. The eastern entrance is reminiscent of Maiden Castle, a bastion-like obstruction being thrown forward to obstruct ingress, while the great area of standing-room provided for the defenders may be looked upon as characteristic of west country forts as it is repeated in a number of others—Cadbury Castle, near Tiverton, and Shoulsbury on Exmoor, for examples. In the outer area a mound occurs,

and ponds also have been formed within the fort. Investigations have brought Celtic antiquities to light and also proved its occupation by the Romans. It affords a magnificent prospect from the summit. In historic times it has been



BADBURY RINGS, DORSET.

utilised, as in A.D. 901 Æthelwald the Ætheling mustered his men there after Alfred's death, upon the occasion of a popular rising.

Cadbury Castle.—This is a good example of a contour fort crowning an isolated hill 800 feet in height. Upon three sides are formidable natural precipices, and the ramparts enclose an oval

inner space, which is approximately level. The valla are continuous except upon the south, where a scarped drop occurs of about 30 feet to the level of a wide berm, on the outside of which a gigantic rampart rises to the height of more than 20 feet above the berm.



THE BERM OF CADBURY CASTLE.

Cissbury, north of Worthing.—This great fortress was constructed by men of the Flint Age, and indubitable proofs of its occupancy by a permanent population engaged in a staple trade are afforded by the immense remains of flint chippings within its area, the product of many generations of flint-knappers. The deep and wide pits within it were dug for the purpose of obtaining flints, the raw material of their industry, and these excavations were subsequently utilised for dwelling-places. The fort is advantageously situated upon the trading route between the inhabitants of the Great Forest of Anderida, covering the Weald of Sussex, and the maritime population of the southern littoral; and this fact

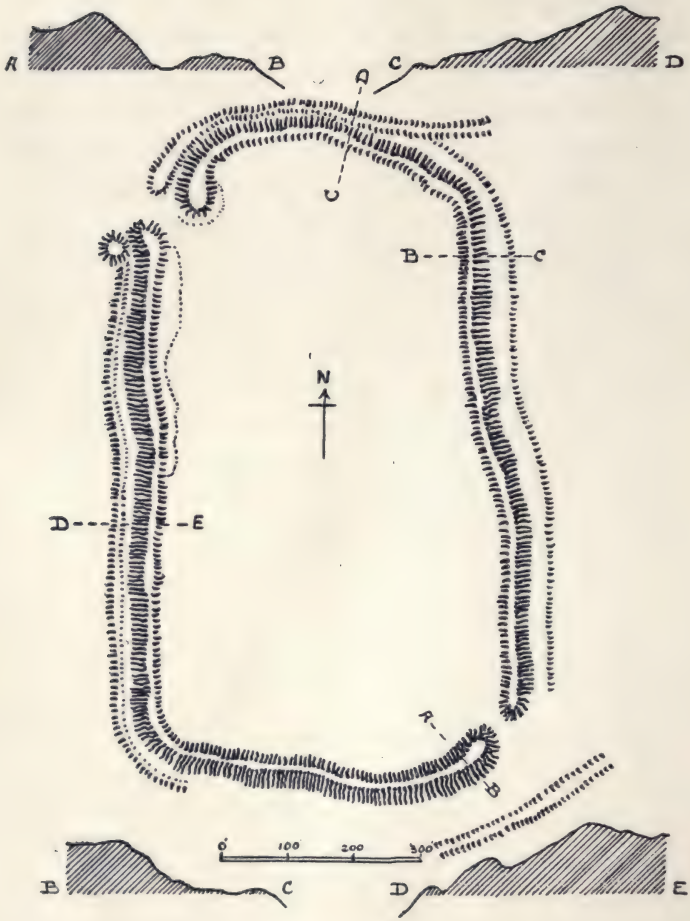




THE BEAUCHAMP TOWER, TOWER OF LONDON.

appealed not only to Neolithic man but also the men of the Bronze and Iron Ages, who occupied it in succession. It is a camp of the plateau type with an inner vallum rising nearly 50 feet above the fosse and 20 above the inner area. General Pitt Rivers estimated that 5000 men would be required to man the ramparts effectually.

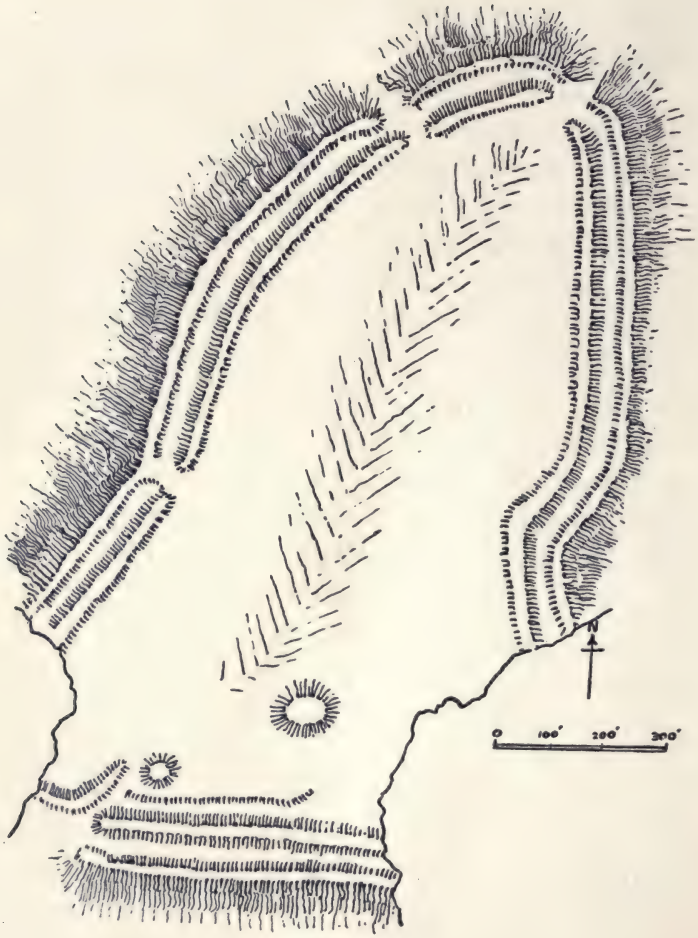
Ravensburgh Castle, Hexton, Herts.—The northern escarpment of the Chiltern Hills is marked by numerous deep ravines leading down with winding courses to the lowlands. This has the effect of leaving bold bluffs of chalk standing up between them, and upon one of these this remarkably fine hill fortress is placed. In addition to the two ravines lying at the sides it is still further isolated by a third running at right angles between the others. The castle occupies 16 acres of the western half of this plateau, and possesses double ramparts on three sides and triple on the north. The section AB shows the steep descent into the ravine upon the south side, and DE indicates the same, while clearly showing the three lines of defence formed by the two ditches. The scarps are remarkable for their clean and smooth surfaces, the chalk presenting the appearance of having been cut with a huge



RAVENSBURGH CASTLE, HEXTON, HERTS.

knife. The entrances into the defence lie at nearly 500 feet above the sea-level.

One of the most prominent examples of the class is *Mam Tor*, a great hill rising to a height of 1700 feet above sea-level, and dominating Castleton and Edale, Derbyshire. Upon the summit of this eminence is a remarkable earthwork enclosing about 16 acres of land, round which the original rampart must have been nearly three-quarters of a mile in length. Natural defences of a very marked character are upon two sides of the triangular enclosure, consisting of steep slopes which descend for a considerable distance. Upon the summit of these slopes two formidable ramparts with an accompanying fosse have been constructed, thus adding still further to an almost unassailable position. The agricultural inhabitants of the district often term it " The Shivering Mountain " from the many little avalanches of shale which are dislodged from its sides. Upon the northern part the natural defences are not so apparent, as the ridge of an adjoining hill approaches at that point. An entrance to the Fort occurs there at the present time, as shown in the plan, but not in its primitive condition. The only method of entering was by



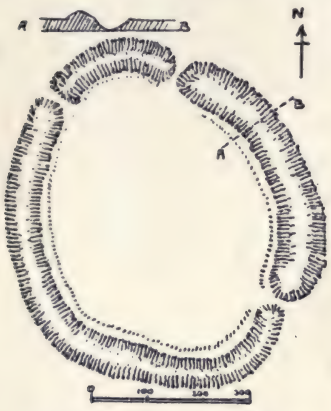
MAM TOR, DERBYSHIRE.

means of the narrow passage shown at the S.W., defended by a fortified mound at its inner mouth, which in turn was defended by a larger mound lying to the N.W. A small spring of water still rises within the enclosure and escapes through the N.W. break. The interior has not been levelled, and a central spine of rock traverses it from north to south. Undoubtedly Mam Tor furnishes us with one of the finest examples of a fortified hill-top to be found in England.

The following are a few instances of artificial defences which, although they stand upon higher ground than the surrounding land, are less dependent upon their elevated position.

Ambresbury Banks, Essex.—These banks are situated in Epping Forest, at the side of the road between Epping and London. They are of British origin, as has been definitely proved by excavations carried out by General Pitt Rivers and the Essex Field Club, thus definitely disproving the assertion previously prevailing of their supposed Roman origin. The outline approaches a square form, and this probably gave rise to the supposition. Only a few pieces of crude pottery and some flint chippings came to light during the excavations. A feature,

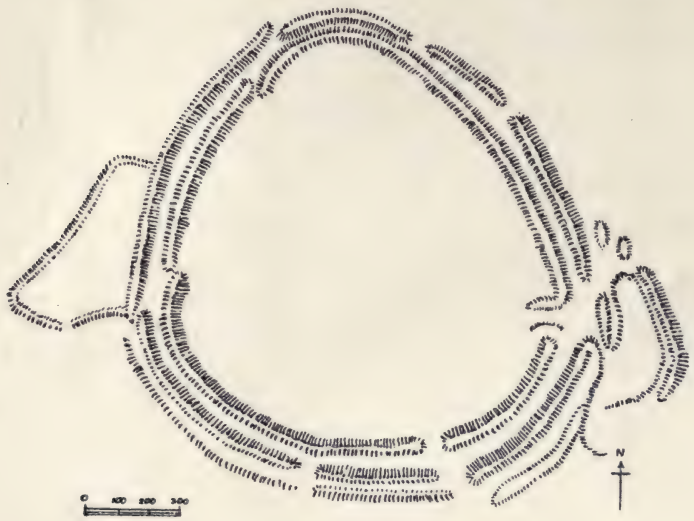
however, was disclosed in the fosse, the lower part of which was originally of an angular section ; in it a depth of silt approximating to 7 feet had accumulated. The scarp was inclined at an angle of 45°, and the counterscarp probably rose at almost the same angle ; the width of the fosse was over 20 feet, and the depth above half that measurement.



HUNSBURY, NORTHAMPTONSHIRE.

Hunsbury, Northamptonshire. — This earthwork is about one and a half miles from Northampton, and may be cited as an example which falls naturally into this subdivision, inasmuch as the hill upon which it stands possesses such an easy slope that it does not tend to help to any marked extent the formidable defences upon the summit. These lie nearly 200 feet above the river Nen, and 370 feet above sea-level. It is a small enclosure, the single fosse of which is well preserved with the exception of a portion upon the north, which has been quarried for iron-stone,

much in demand in that district. The defences were undoubtedly of great power originally, but have been much degraded; the interior of the camp has been ploughed, and the earthworks



YARNBURY, WILTS.

planted with trees. The original opening is that lying to the S.E. The name upon the Ordnance Survey is "Danes Camp," though upon what authority is not apparent. Camps of a very similar nature may be found at Ring Hill in Essex, and Badbury in Berks, while Whelpley

Hill in Buckinghamshire is almost an exact replica.

Yarnbury lies about three miles to the west of Winterbourne Stoke in Wiltshire and is allocated to this division, being one of the largest and best of its kind. The area enclosed is about 20 acres, encircled by three valla and two or three ditches. The inner rampart rises at times to over 50 feet above the fosse. There are a number of entrances, but only those to the east and west are original, each being defended with outworks, the eastern gate by bastions similar to those at Maiden Castle and Badbury Rings.



CORFE CASTLE DORSETSHIRE.

CHAPTER III

SIMPLE ARTIFICIAL ENCLOSURES

(*a*) *The Romano-British Period, 54 B.C.–A.D. 410*

THE earthworks under consideration are those which, rectangular or otherwise, were constructed during the historic period commencing with the Roman subjugation of Great Britain, and ending a few years before the Norman Conquest. It may be termed the Romano-British-Saxon Period. It was the incipient era of castellation proper in the British Isles, distinct from pure earthworks, inasmuch as during the Roman period massive defences of masonry supplanted the earlier uncemented walls and wooden palisading.

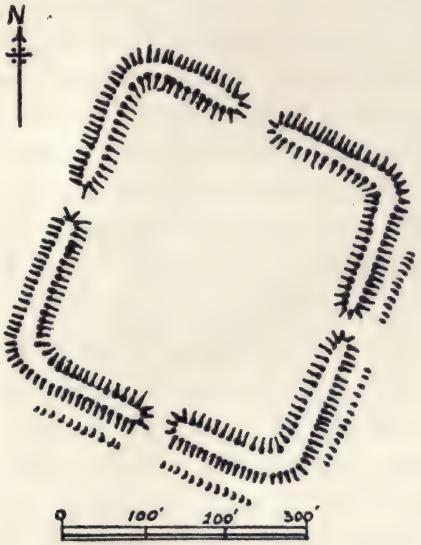
At the first invasion of Caesar, 55 B.C., we read of no towns being assaulted, but in the next, 54 B.C., the great *oppidum* of Cassivelaunus was taken by storm after the passage of the Thames.

This capital, Verulamium (adjacent to the modern St. Albans), was a large oval enclosure defended upon three sides by a deep fosse and vallum, in one place doubled, and upon the other by an impassable marsh. The city was attacked in two places and captured. In A.D. 43 the final subjugation of England took place, and the vallum at Verulamium was crowned by the Romans with a massive wall of masonry, great portions of which still remain, supplanting the former wooden obstructions.

That which occurred at Verulamium happened also in numerous other places, Silchester for example, the Romans thus adapting an efficient earthwork to suit their own requirements. Where, however, pre-existing works did not occur, the walls, ramparts, and fosses were invariably constructed round a rectangular area such as may be seen at Chester. The enclosed streets crossed each other at right angles, and this feature is a marked one in Verulamium, although, as stated, the defences do not conform to the rectangular shape. Isolated earthworks constructed during the Roman Period are always more or less square.

Melandra is a Roman earthwork in a good

state of preservation near Glossop in Derbyshire. It is almost square, and consists of a simple vallum and external fosse. There are four openings caused by two main roads which inter-



MELANDRA, DERBYSHIRE.

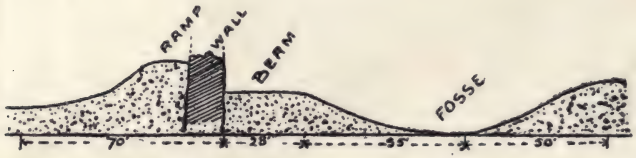
sected at the centre of the earthwork. It affords an example of the prevailing structure of Roman Camps, which are numerous in those parts of the British Isles which owned the sway of the conquerors. The many camps, for example, upon the Watling Street all exhibit the same

general plan, based upon the formation of the Roman legion.

Richborough Castle, near Sandwich in Kent, may be cited as a veritable example of a Roman castle built in Britain, and is almost the only one remaining at the present day that preserves in any marked degree its original salient points. It is conjectured to have been erected in the time of the Emperor Severus, its mission being to protect the southern mouth of the great waterway which then separated the island of Thanet from the mainland, a similar office being performed by Reculvers at the northern entry. Three sides of the rectangle are still protected by the massive masonry walls which the Romans knew so well how to build; the fourth, or eastern side, where flowed the river Stour, possesses no visible defence, as it has been undermined and overthrown by the river-current. The northern boundary is 440 feet long, and the western 460. The walls, which vary in height from 12 to 30 feet, are about 12 feet thick and batter towards the top; they are beautifully faced with squared stone in horizontal courses similar to those seen at Segontium, the Roman station at Carnarvon; the core is composed of

boulders from the neighbouring beach, embedded in mortar with courses of the usual Roman bonding tiles. In the centre of the area stood a temple and other buildings; the foundations of some of these are still in evidence. Whether the external walls were strengthened by the addition of square or circular towers of masonry, as at Porchester and Silchester, has not as yet been definitely determined.

A common device in Roman castrametation



SECTION OF THE CITY DEFENCES OF VERULAMIUM (NEAR ST. ALBANS).

was the berm or platform outside the surrounding wall, but immediately beneath it; in an attack upon the fortifications the assailants would be exposed to a plunging fire of missiles from the ramparts while descending the steep counter-scarp of the ditch, to a raking discharge when ascending the slope of the scarp, and be entirely devoid of cover when crossing the berm, which was generally about 20 feet wide. Another advantage of the berm was that it placed the

engines of the besiegers on the remote side of the ditch at a greater distance from the walls, and thereby lessened the effect of the missiles discharged from them. To still further modify the results of the latter upon the wall it was customary to bank up the earth upon the inner face to form a ramp, and this also lessened the effects of the rams of the besiegers. These features are shown in the foregoing diagrammatic section of the walls of Verulamium.

(*b*) *The Saxon Period, c. 410–1066*

Concerning the defensive works erected in the British Isles during the Saxon Period there is more indefiniteness prevailing at the time of writing than there is with regard to any period antecedent or consequent to it. This may be attributed to two causes, the first being the unsatisfactory use of the word *burh* in Anglo-Saxon manuscripts, and the second the effects produced during the past half-century by writers wrongly attributing the remains of early Norman castellation to the period preceding it, following upon a misunderstanding of the word above mentioned. This has had the result of rendering the major portion of

the works produced upon the subject of castellation during the latter half of the nineteenth century unreliable and obsolete so far as the Saxon and Roman periods are concerned, while at the same time producing a marked hesitancy among experts to definitely attribute any work to the first of the periods without systematic excavation of the site.

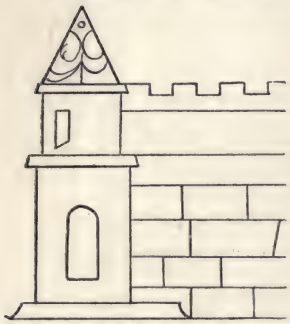
In O.E. the word *burh* in its nominative form signifies a fort or stronghold and is generally translated as "borough," while in its dative form *byrig* it is commonly used to indicate what its modern representative "bury" conveys. But Anglo-Saxon writers did not use the two words strictly, and thus hesitancy and confusion have been produced. It is now being generally accepted that the usual form of burh or borough was that of a rectangular enclosure surrounded by a rampart and an external ditch, the area being of any dimensions up to 20 or 30 acres or more. This arrangement is probably exemplified in the earthworks at Wallingford.

It is obvious that the inherent weakness in this very elementary system of defence lies in the inability to adequately man all the ramparts at once because of their great extent; the

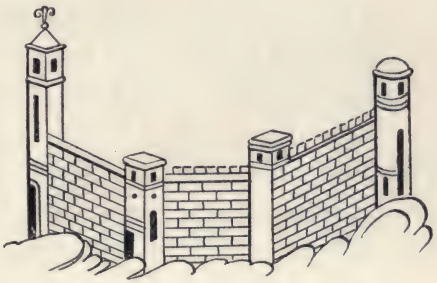
defenders probably relied upon the promptness with which they could meet a threatened attack at any particular point. The Anglo-Saxons at a very early period recognised the advisability of forming fortified positions in the island, and carried out the system so entirely that practically every isolated house, farm, or group of buildings was enclosed by its rampart and ditch. Even at the present day we become aware of this fact from the scores of "burys" and "boroughs" with which the surface of our land abounds. The burh was thus a comparatively slight affair when compared with earthworks which had preceded it.

But undoubtedly the great centres of defensive strength lay in those towns which the Romans had formerly fortified, and the inclusion of their masonry walls in the borough boundary immensely augmented their efficiency, as is exemplified at York, Lincoln, and Chester. Around villages and farmsteads the defences probably consisted of a ditch, a vallum surmounted by a turf wall, a palisading of thick stakes, or even a hedge. That the latter was a mode of defence in the earlier part of the Saxon Period is proved by an insertion in the Old English Chronicle under the year 547—where Ida of

Northumbria is said to have built *Bebban burh*, *i.e.* Bamborough,—that it was first enclosed with a hedge, and subsequently with a stone wall. Illuminations in Saxon MSS. representing fortified towns invariably depict stone walls with battlements; but, again, it may be that these are Roman, and crenellated walls are



BATTLEMENTED PARAPET SHOWN IN CAEDMON'S PARAPHRASE; MS. IN BODLEIAN LIBRARY.



BATTLEMENTS SHOWN IN HARL. MS. 603. (An Anglo-Saxon MS. of the Psalms.)

extremely ancient, being represented upon the Nineveh marbles. In the illustration from the Caedmon MS. given here true battlements are depicted by the Saxon artist, while a similar attempt has also been made in Harl. MS. 603—a battlemented parapet being evidently intended.

Ida "wrought a burh" at Taunton (before 721), and Alfred built many burhs against the

Danes. His son, Edward the Elder, and Ethelfleda, the Lady of the Mercians, were yet more energetic in raising these defences. To Edward the burh at Witham, now unfortunately in process of demolition, and also that at Maldon are attributed, while Ethelfleda was responsible for those at Stafford and Tamworth in 913, and at Warwick in 914. In the absence of rebutting evidence we are undoubtedly justified in assuming that these burhs were simply replicas of the conjectured method of fortification pursued by the Saxons; the belief is strengthened by the remains at Maldon and Witham, where wide rectangular enclosures are found surrounded by earthen ramparts and external fosses.

A difficulty, however, arises when we consider the two burhs erected at Nottingham. No rectangular enclosures have been discovered there, and it seems probable that the word simply signifies that two forts were erected to protect the bridge which passed over the Trent at this point, similar perhaps to the mounds of earth at Bakewell and Towcester, which are supposed to date from the same period.

The genius of the Saxons appears to have been adapted to field warfare rather than to the

construction or maintenance of strong military stations, for we find that when defeated they took refuge in natural fastnesses rather than in fortresses; the woods and marshes of Somerset, for example, protected Alfred from the pursuit by the Danes, and the last stand of these people against the Normans occurred in the fens and marshes about Ely. There is no account extant of a protracted resistance afforded by a Saxon fortress; that of London against the Danes may be attributed to the massive Roman walls there.

It is unsatisfactory to be compelled to wander thus in the realms of conjecture, but it is probable that the kinds of defence varied in different places, since at Worcester Edward surrounded an ancient borough with a wall of stone. An oblique light, however, is thrown upon the subject by the presence in England of a few undoubted examples of fortifications erected at definite dates by another northern race, *i.e.* the Danes, who might be expected to fortify themselves somewhat similarly to the Saxons.

These marauders built burhs at Reading, Quatford on the Severn, and Benfleet, but by far the best now remaining are those at Willington and Tempsford on the river Ouse. At Willington

the Danes proposed to establish their winter quarters in 921, and an extensive burh was thrown up for the purpose. It consisted of a



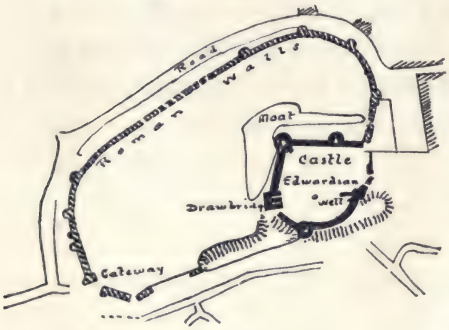
THE DANISH BURH AT GANNOCK'S CASTLE, NEAR TEMPSFORD.

large enclosure with inner and outer wards, high ramparts, and three wide ditches filled with water from the river. The most striking features, perhaps, were the two large harbours within the fortifications, designed to protect the Danish

galleys. The Saxon king Edward, however, carried the place by assault and burnt the fleet. The discomfited Danes, much lessened in numbers, retreated up the river, and near the junction of the Ivel with the main stream threw up a smaller burh which now bears the name of Gannock's Castle, near Tempsford. The fort is an oblong area enclosed within a single fosse, and, what is very significant in face of later developments, a mound of earth stands within it near a corner, where the only entrance to the fort is found. Probably this mound was protected by palisades the same as the rampart, but Edward, flushed by his former success, stormed the burh and captured it with terrible loss to the routed garrison.

Pevensey.—Pevensey Castle is associated with the earliest history of Britain. Upon its site stood the Roman Camp of Anderida, oval in shape, and obviously adapted to surface configuration. It is the reputed site of the landing of Caesar. The British occupied it when the Romans left, and here occurred the great massacre by the South Saxons under Ella in 477. In 1066 William I. landed at Pevensey and erected one of his portable wooden castles, probably

within the Roman Camp. The Castle came to his half-brother Robert, Earl of Mortaign, who considerably strengthened the existing remains. The supposition that he erected a Motte and Bailey castle seems to be negatived by recent investigations. The Castle was held by Bishop Odo against the forces of Rufus for six weeks in 1088, but was surrendered, Odo promising to give up Rochester, which promise he subsequently violated. King Stephen besieged it in person in the war with the Empress Maud, when it was defended by Gilbert, Earl of Clare, and only surrendered through famine. It came to the Crown during the thirteenth century, and John of Gaunt appointed the Pelham family to be castellans. In 1399, Sir John of that name, an adherent of Bolingbroke, was absent when the Castle was besieged by the king's forces, but his wife, the Lady Jane, conducted an historical defence with such gallantry that the



PEVENSEY CASTLE.

assailants retired. Pevensey appears to have been used as a State prison, and within it many notable persons have been incarcerated, including Edward Duke of York, James I. of Scotland, and Joan of Navarre, second queen of Henry IV.

A large proportion of the Roman wall surrounding the oval site is still in excellent preservation; it is strengthened by fifteen drum towers of great solidity. The height ranges between 20 and 30 feet, and upon the summits may still be perceived some of the strengthening Norman masonry. The inner castle is a remarkable feature of the enclosure; it is supposed to have been erected at the end of the thirteenth century, and one of the towers dates from the time of Edward II. It forms an irregular pentagon, each angle being strengthened by a massive drum tower; two semicircular towers flank the entrance, of which one only remains in good condition. The masonry of the draw-bridge is still to be seen, and the entrance passage with portcullis grooves and meurtrière openings are in good condition. The great Roman wall has been utilised to form portions of the eastern and southern sides, but this suffered in the time of Elizabeth, when a part of it was blown up by gunpowder.

CHAPTER IV

THE MOTTE AND BAILEY CASTLE, *c.* 1066–*c.* 1100

As is well known to students of English history the Norman influence began to prevail in this country some time anterior to 1066. The court of Edward the Confessor owned a fairly large proportion of Normans, the sympathies of that monarch being strongly in their favour. They obtained from him grants of estates in return for feudal duties, and, the Welsh being at that time a source of annoyance, some of the land so allocated was situated on the borderland.

So far as is known, the earliest castle to be erected by a Norman in that locality was built by Richard Fitz-Scrob, *c.* 1050. *Richard's Castle*, as it is termed, stands in the northern part of Herefordshire; a second example was thrown up at Hereford, and a third at the southern entrance to the Golden Valley. If we may trust con-



THE TOWER OF LONDON.

temporary documents a similar work was erected about the same time at Clavering Castle in Essex by a Saxon native of the county, Swegen the Sheriff, and also, probably, the castle at Dover, which appears to have been in existence prior to the Battle of Hastings. Of this little group of pre-Conquest castles the strongest was conjecturally that at Hereford, erected in 1055 by Harold, Earl of the West Saxons, consisting of a Motte and Bailey similar to the rest, but only a small portion of the bailey remains at the present time, as the mound has been removed and the ditch filled up.

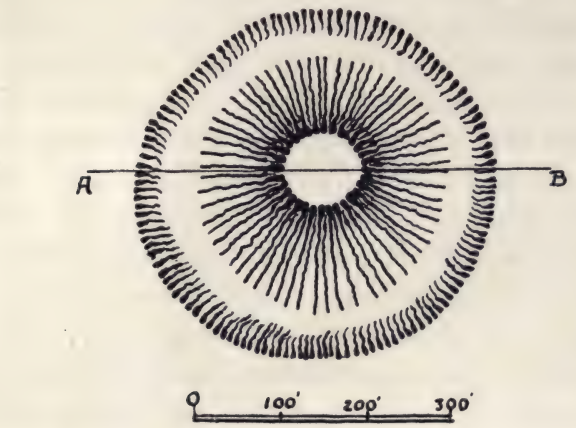
As regards the construction of a castle of the Motte and Bailey type, it was commenced by the excavation of a deep ditch enclosing, as a rule, a circular space. There are a few exceptions which approximate to the oval, and the oblong form is not unknown. The whole of the ballast excavated was thrown up inside the ring until a high mound, flattened at the top, and with sides as steep as the " angle of repose " of the excavated material would allow, had been formed. The last portions of the superincumbent earth thrown up were consolidated by ramming. Around the edge of the area upon the summit of

the mound a breastwork of timber was placed, either of thick vertical planks driven deeply into the soil and firmly strengthened behind, or of timber and stone as previously described in connection with fortified hill-tops (Chap. II.).

Upon the summit and occupying the centre, as a rule, a wooden castle was erected known as the " bretasche," and varying in size and accommodation according to the available space. We may safely infer that the height of the bretasche was not less than two stories, and this, added to the elevation of the mound which occasionally reached to 60 feet, would afford a coign of vantage for a view over the whole area below. Upon the outer edge of the fosse a vallum occurs in many examples, thus still further adding to the depth of the defence and giving increased height to the counterscarp; it also afforded a means for erecting a palisading of stakes if advisable. To afford ingress and egress to the fort a narrow flying bridge of wood was erected reaching from the top of the mound to the outer edge of the fosse.

Such was the method of construction of the simplest form of this type, of which Bures Mount in Essex, The Mount, Caerleon, and Clifford's

Castle, Northamptonshire, are examples; but it is extremely questionable even if these cited cases were made without an accompanying bailey,



CLIFFORD'S CASTLE, NORTHANTS.

although no traces can now be discerned. The accommodation would be so extremely limited, and the danger of starvation to the garrison so

imminent, seeing that no room could be afforded for any cattle or sheep upon the motte, that, unless intended to be of a temporary nature or hastily raised in an emergency, we are justified in assuming that these forts, of which not very many occur, are in an incomplete condition.

Clifford's Castle, at Little Houghton, three miles east of Northampton, is an example of the Motte and Fosse; it is one of those defending the valley of the river Nen—Earl's Barton and Wollaston being similar companion defences. The hill is of large circumference, presenting imposing proportions, and may be compared with important works like those at Ongar and Pleshey in Essex, or with Thetford in Norfolk. It rises to a height of over 50 feet above its surroundings, and lies upon part of a small natural ridge. A ditch surrounds the base, the ballast from which was taken to the top of the hill in order to increase the height; the summit there, however, is level. In order to increase the efficiency of the fosse it was converted into a moat, water being admitted from the adjacent river. At the present time no traces whatever of a bailey are discernible, nor of any enclosure with masonry walls. This

does not prove that these additions have never existed; the natural place for them would be upon the eastern side where high ground is situated, and if they have been built at any period they would present features similar to those at Thurnham in Kent. The summit of the mound would in that case be reached by a flying bridge of wood.

The Bailey, or base court, was an enclosed piece of land lying at the foot of the motte; a ditch surrounded it, the ballast from which was thrown up inside the area so as to make a rampart for palisading. The two ends of the ditch joined the fosse encircling the motte, generally upon opposite sides of the latter. In the bailey the buildings for the garrison, stables, offices and domestic buildings were erected, while the bretasche afforded accommodation for the lord of the castle, his family, and immediate attendants. In those cases where a second bailey occurs it is generally extended beyond the first on the face remote from the motte, as at Ongar Castle, Essex; but sometimes, though more rarely, both baileys will abut upon the mound, as at Newton in Montgomeryshire, while in a limited group of castles, including Windsor and

Arundel, the motte occupies the centre of the whole defence.

It is not difficult to understand the almost universal rule that the mound is placed upon the outer edge of the enceinte; it was without doubt the strongest part of the position, and the refuge to which the besieged retreated when the bailey, or baileys, had been lost, and in the last extremity it afforded a means for escaping to the open country. This disposition of the mound with regard to the bailey should be borne in mind when dealing with those castles which have been erected in later times upon a pre-existing Motte and Bailey fortress, the mound, as a rule, with its accompanying enclosures serving as a nucleus around which masonry defences could be grouped.

Through the agency of the plough, and aerial forces of degradation of various kinds, baileys present but scanty traces at the present day in many instances, and this may be taken as proof, if any were needed, that earth and wood were the only kinds of material employed during the early Norman period in the construction of forts. No traces of stone have been discovered which can be assigned to that period with

absolute certainty, and not only does this well-established fact corroborate the assertion, but documentary evidence points in the same direction.

It is quite possible that other Motte and Bailey castles besides the few enumerated may eventually be ascribed to the fifteen or twenty years preceding the Norman invasion, for there was nothing to prevent a wealthy Thegn from erecting one of this type which he may have observed on the Continent where many scores were in existence. The Bayeaux tapestry shows Dinant as being defended by a Motte and Bailey castle; the usual wooden tower is seen upon the top of the mound, and the enclosed bailey is stockaded. It also shows the construction of such a castle at Hastings, besides four similar examples in Brittany and Normandy.

Certain it is that almost immediately after 1066 a rapid construction of these fortified posts occurred in many parts of England and Wales, not necessarily equally distributed, but more thickly dotted in those places which the military instinct of the great Conqueror led him to deem desirable. Thus the Welsh borderland is remarkably rich in examples, Herefordshire

alone containing thirty-two, as compared with Leicestershire four, Nottinghamshire five, and Hertfordshire four. It is remarkable, however, that many highly developed examples of this class are to be found in the eastern counties where no borderland existed, and we can only account for this anomaly by supposing that a Norman lord, to whom a grant of land had been assigned in recognition of his military services, hastened to consolidate his occupancy by the erection of a castle, and that such building might possibly not have any reference to the defence of the kingdom as a whole.

Thus the castle became the accredited centre of a feudal barony, and a Motte and Bailey in almost every case is connected with places mentioned in the Domesday Book as being the residence of a Norman landowner. For example, Berkhampstead, owned by Robert Count of Mortaign, boasts one of the most perfect specimens to be found in the country; the manors of Nigel de Albini at Cainhoe in Bedfordshire, Robert de Malet at Eye in Suffolk, William Fitz-Ansculf at Dudley in Staffordshire, Geoffrey Alselin at Laxton in Nottinghamshire, William de Mohun at Dunster in Somersetshire, Robert le Marmion



KENILWORTH CASTLE, WARWICKSHIRE.

at Tamworth in Staffordshire, Robert Todenei at Belvoir in Leicestershire, Henry de Ferrers at Tutbury in Staffordshire, Roger de Busli of Tickhill in the West Riding, and Ilbert de Lacy at Pontefract in Yorkshire, all exhibit the same feature.

These castles in many cases became the centre around which sprang up the dwellings of traders and agriculturists which subsequently developed into boroughs, while in not a few instances ecclesiastical settlements occurred which finally expanded into stately monasteries.

Again, many barons threw up castles in the centre of, or adjacent to, pre-existing towns, the subsequent fortifications of which became an integral part of the whole scheme of defence, as at Warwick, Nottingham, and Leicester. Wherever a castle was built for the double purpose of overawing a town and defending it against a common enemy, it is generally found placed upon the city defences or immediately adjacent thereto; and as the settlement had invariably originally sprung up in the vicinity of, or upon the banks of, a river, the fort is usually found placed at the junction where the borough and the river defences meet. A fortress situated in

this position would be able to afford material help to a relieving army, while at the same time in the event of the town being captured and given to the flames it would occupy the best possible position, short of being entirely outside the walls, for the garrison to escape the effects of the conflagration. This position of the castle with respect to the town walls and other defences will be recognised in the cases of Warwick, Hereford, Stamford, Cambridge, Bedford, Chester, Shrewsbury, etc.

The Motte and Bailey castle was, as a general rule, placed upon the banks of a river, which thus ensured immunity from attack upon one side, while at the same time supplying the water for the ditches defending the other three sides. In many examples, however, the defence depended upon dry ditches. The proximity of high land apparently had no bearing upon the choice of position, unless of course it was dangerously near; it was only upon the introduction of gunpowder that the presence of commanding spots in the neighbourhood became of importance in the selection of a site. We find, however, that the positions usually chosen enabled the garrison to command a view over the surrounding

country, and this feature is a prominent one at Richard's Castle, which affords a wide extent over the northern part of Herefordshire. This is also the case at Belvoir, which occupies a similar position with respect to the great plain of Nottinghamshire. There were naturally a number of points which had to be taken into consideration in the selection of a site, but those enumerated were among the most important; one fact is forcibly borne in upon the mind when viewing the positions of these ancient fortresses, namely, that the builders had a keen eye for the recognition of salient points in the ichnography of a district.

In an invasion of the British Isles at the present day the unwelcome intruder would probably hasten to entrench himself and render his position safe by pits, earthworks, and an elaborate entanglement of barbed wire; and in the same manner as these could be rapidly prepared, so we find that the Conqueror, directly after Hastings, threw up the defence which would be the most expeditious in the making and the cheapest in construction. The Motte and Bailey castle fulfilled both conditions inasmuch as it was only necessary to obtain, by

fair means or otherwise, an adequate number of Saxon labourers to ensure the rapid erection of the mound, while simultaneously the local trees were being felled and roughly hewn into shape by native carpenters for the palisades and bretasche. To give an idea of the speed with which these fortresses could be made, we find that in a brief campaign of less than two months, in 1068, the king founded eight of considerable importance, including those at Nottingham, Warwick, Lincoln, Huntingdon, and York; in the following year the erection of a second castle at York only occupied eight days, and Baile Hill, the mount of the defence in question, sufficiently testifies to the magnitude of the work. One great advantage of the system should not be forgotten, namely, the possibility of adequate defence by a small garrison because of the narrow front exposed to an attack, and the immunity from harm of the besieged while the defences stood intact.

Windsor.—The Royal Castle of Windsor originated in one of the Motte and Bailey type erected by the Conqueror upon the striking eminence near the Thames. It was one of those

that were hastily thrown up in order to consolidate his power, as it is mentioned as early as 1070, and in Domesday Book in 1086. It is one of a small and exclusive type by reason of the dominating motte occupying the centre of the enclosure instead of the usual position at the side or end; this peculiarity is shared by Arundel, Nottingham, and one or two others. It is quite reasonable to infer, however, that one, or even both, of the baileys were added at some time subsequent to the throwing up of the mound. It was sufficiently advanced in strength in 1095 to be the prison of de Mowbray, Earl of Northumberland, and the extensive additions made by Henry I. enabled the Court to be held there in 1110. John seized on Windsor during the absence of his brother, but was besieged in it by the loyal barons, and forced to surrender. Windsor has been stated as the place of imprisonment of the de Braose family in 1210, who were deliberately starved to death by the inhuman John. In the reign of Henry III. very extensive building operations occurred, and a number of towers, including the Barbican, were added, but probably Edward III. left a greater mark upon the castle than any monarch pre-

ceding him, possibly by reason of a natural affection for his birthplace.

Upon the great motte which his Norman ancestors had reared he built that magnificent Shell Keep which forms such a fitting centre for the grand range of buildings encircling it. The works commenced about 1348 and lasted for twenty years, the celebrated William of Wykeham, subsequently Bishop of Winchester, being the architect. They included the whole of the walls of the enceinte, the great Hall, various lodgings for officials, and St. George's Chapel.

In 1347 two notable prisoners were confined here, David Bruce and John, king of France. In the reign of Richard II. St. George's Chapel was found to be in an insecure condition, and Geoffrey Chaucer was appointed Clerk of the Works. Windsor was the scene of the imprisonment of the Scottish king James I. under Henry IV. and V.

Edward IV. commenced the re-building of St. George's Chapel, which was not completed until the reign of Henry VIII., while to the latter monarch is due the great gateway which bears his name. The Castle suffered but little structurally during the Civil War, but all the plate and

many of the priceless relics were the objects of plunder. Charles II., William III., and Anne probably did more to destroy this gorgeous monument of antiquity than any preceding monarchs; with the idea of adapting it to modern requirements buildings were dismantled, old landmarks were removed, and trashy innovations of an unworthy age substituted in their place. There are but few marks of commendation attached to the name of George IV., but among them the restoration of the Castle upon the ancient lines, when £700,000 were expended, must be placed to his credit. In spite of the vandalism of recent centuries there still remain many interesting examples of medieval masonry.

CHAPTER V

THE SHELL KEEP, *c.* 1100–1200

THE Shell Keep represents the second development of the Norman Castle, and consists of a circular or polygonal ring of stone walling erected upon the motte in the position formerly occupied by the wooden palisading. The substitution of masonry for perishable material was a natural and logical sequence, but in the hurried rush of events immediately following upon the Conquest there was no time for erecting such a defence. A hastily thrown-up mound also would not bear the weight, and it was necessary to allow the earth to consolidate before imposing it. As the country became more settled, and economic and other upheavals less frequent, the Norman barons found time and means to devote to the strengthening of their feudal homes.

Of the precise date of the first Shell Keep erected in these islands we have no definite record; it is very doubtful if any saw the light during the reign of William the Conqueror or Rufus, although many examples could be found at that time upon the Continent. We know that certain Castles, such as Carisbrooke, Lincoln, and Totnes, had developed Shell Keeps prior to the termination of the reign of Stephen, and that Windsor, Berkeley, Arundel, and a number of others were furnished with the same not very long after, so that the age of the Shell Keep may roughly be ascribed to the twelfth century. One must not infer, however, that every example of a Shell Keep dates inexorably from that age, because, having proved its efficiency, it became a recognised method of defence, and Lewes and Durham were endowed with Shells as late as the reign of Edward III.

The Shell Keep is always placed upon a mound, either natural, structural at the time of erection, or a pre-existing motte, but by far the greater number of mounds are artificial. The configuration of the earthwork suggested the shape of the Shell, being either circular, oval, or, as in the case of York and probably

Warwick, that of a quatrefoil. The majority are polygonal, the sides not necessarily of equal length, and few of them exceeding the duodecagon in number. The diameter varied from 100 feet to 30, seldom more or less; the thickness of the wall was from 10 feet to 12 feet, and the foundations were carried from 4 feet to 6 feet into the soil. This wall was not built upon the extreme edge of the plateau, but generally a few feet from it and carried upwards to a height of between 20 feet and 30 feet, steps of wood or stone upon the interior face giving access to the rampart.

Being essentially in one compact mass, without vertical breaks of any great extent, and homogeneous in construction, the Shell Keep was specially adapted to crown the summit of an artificial mound. The interior area was occupied by buildings, generally abutting upon the Keep walls; in early examples these were constructed of wood, but subsequently almost entirely of stone to lessen the danger of conflagration.

The substitution of masonry for palisading upon the mound suggested a similar course for the defence of the bailey, and the twelfth century

witnessed the erection of many of those gigantic walls surrounding them which excite our admiration at the present day by their massiveness and strength. They followed the scarp of the original mounds, and in many examples the water of the external fosse lapped their bases. The addition of a barbican or ravelin to defend the chief entrance to the castle, which invariably opened into the bailey, was now adopted, while the former wooden ladders or bridges giving from the motte to the bailey were superseded by causeways of stone, defended on either side by a continuation of the bailey enceinte up the slope of the mound. Stone steps instead of wood led from the inner surface of the curtain walls to the ramparts above; stone buildings were erected for the domestic offices, barracks, etc., while the wooden planks and ladders by which the moats had formerly been crossed gave place to masonry arches.

These improvements in the majority of examples did not occur at the same time, hence the presence of a twelfth-century Shell Keep is no guarantee that the curtain walls are of the same age. The introduction of flanking towers, generally semicircular, into the curtain wall, and of

rectangular towers, astride it, as a rule, occurred in this century. There are examples in our island, however, which prove that only partial adoption of these improvements took place in many castles, and that, for example, the baron and his family were quite content to dwell within the wooden bretasche upon the motte, at the same time strengthening the weaker bailey defences by the erection of a substantial curtain wall.

Alnwick.—The magnificent Castle of Alnwick is an excellent example of a Shell Keep fortress; it stands upon elevated ground on the south bank of the Aln river and about 5 miles from the sea. At the Conquest the site, which probably had an earlier defence upon it, was granted to Ivo de Vescy, whose daughter married Eustace Fitz-John. The constant inroads of the Scots necessitated a stronger fortress at this point, and, about 1140, Fitz-John began the building of which some splendid remains are still visible, chiefly in the innermost gateway and the outer curtain wall. His son, who took his mother's name of de Vescy, placed the Castle in the custody of the Empress Maud's uncle, King David of Scotland. In 1174, William the Lion invaded England and

besieged the Castle, but a coalition of the northern barons captured the king and took him to Richmond, thus raising the siege. The de Vescy family died out in 1297, and after a temporary occupation by Anthony Bek, Bishop of Durham, was purchased by Sir Henry de Percy, a name which is associated with everything that is brave, chivalrous, and martial in the county of Northumberland. The Percy who fought through the wars of Edward III. and was present at Halidon Hill and Neville's Cross was considered as second only to the king in importance, while the marriage of his son to Mary Plantagenet, daughter of Henry, Earl of Lancaster, proved that it was worthy of alliance with the blood-royal.

In 1405 Alnwick was besieged, and yielded to Henry IV., following upon the battle of Shrewsbury and the defection and death of Hotspur; Henry V., however, restored the heir to his possessions, and created him Earl of Northumberland. He was killed at the first Battle of St. Albans, 1455, while his son fell at Towton in 1461. The Castle saw much fighting in the latter part of the fifteenth century. The long line of the Percies came to an end in 1670; it

was probably the most historic of our great English families, and eight bearers of the title met with violent deaths, chiefly on the battle-field. The daughter of the last Earl married Charles Seymour, Duke of Somerset, and their daughter married Sir William Wyndham, thus conveying to him the estates of Petworth, Egremont, and Leconfield. In the next century a Duke of Somerset left a daughter who inherited Alnwick and married Sir Hugh Smithson, who was created Earl Percy and became the ancestor of the present owner.

The Castle is cut off from the town of Alnwick by a deep combe, which has been much scarped; it is a matter for doubt whether the battlemented walls of the town were ever joined to those of the Castle, the same as at Conway and elsewhere. The Shell Keep was erected in 1140, but is so surrounded by subsidiary towers as to almost lose the characteristic. It lies in the centre of the great enclosure, and dual defences run east and west to the enceinte, thus making two wards, or baileys. The knoll upon which the Shell rests may either be a natural feature or the artificial motte of a previous castle. The great gateway and the barbican present excellent examples of

military architecture of the fourteenth century. In the middle of the eighteenth century repairs and restorations took place in the execrable taste then prevalent, some of which remain to the present time to mar the aspect of an otherwise superb relic of the past.

Arundel.—The Manor of Arundel is one of the most ancient in the kingdom, being specifically mentioned in the time of Alfred the Great, while, respecting the Castle standing there, it is unique in being the only one mentioned in Domesday as being in existence before the accession of William I. That king granted it to the great Montgomery family, who were succeeded in its possession by King Henry I., through the rebellion of Robert de Belesme. It afterwards passed in succession through the families of D'Albini, Fitz-Alan, and Howard for seven centuries to its present owner, the Duke of Norfolk.

Many important events have linked this great military structure indissolubly to the history of England. Here the Empress Maud was received with her brother, the Earl of Gloucester, in 1139, which precipitated an attack by King Stephen, but the most famous event connected with it was the siege of 1643, when Sir William Waller,

first overcoming the defences of the Town, placed his guns on the top of the Church Tower and proceeded to batter the Castle. It capitulated after seventeen days' siege, and the domestic buildings were levelled to the ground.

The Castle is constructed upon the end of a ridge of Chalk extending from the South Downs, with a natural escarpment upon the east and south. It is an excellent example of masonry superseding earthwork defences without obliterating their original lines. The position is such as to suggest a prehistoric camp of the promontory type. The chief original defence was the great moated mount, which is over 200 feet in diameter; on the south side the height from the summit to the bottom of the ditch is 70 feet, being altogether but a little smaller than Windsor. Like the latter it possesses two baileys, occupying over 5 acres in extent, and together forming an oblong enclosure. The mount stands near the centre of the western side upon the enceinte, the ditch forming part of the outer ditch of the Castle in one place. This outer fosse has been much strengthened by artificial means, but is in many places natural.

Upon the motte a Shell Keep was erected in



ARUNDEL CASTLE, SUSSEX.

the late Norman Period; it is about 20 feet high, with walls nearly 10 feet thick, and is almost 70 feet in diameter. The walls are faced with Caen stone covering a core of Sussex stone and Chalk. The barbican, called the Bevis Tower, and a portion of the great gatehouse, were built in 1295 by Richard Fitz-Alan, who also erected four towers at equal distances round the enceinte. After the last siege the place remained a heap of ruins for many years, but about 1786 the tenth Duke of Norfolk began to rebuild it, and expended vast sums upon the fabric. The result was the practical re-erection of the present magnificent structure, a typical example of the stately homes of England, and an appropriate dwelling-place for our premier Duke, who has in comparatively recent years erected a sumptuous Cathedral as a fitting companion to the ancient baronial Castle.

Carisbrooke.—Carisbrooke stands upon a site which was undoubtedly a fortress occupied by the Jutes, who conquered the island; William Fitz-Osborne, Earl of Hereford, obtained possession from the Conqueror and reared a motte and bailey castle there. His son, who was imprisoned for life, forfeited the estates, which

came into possession of Richard de Redvers, whose heir became Earl of Devon. Piers Gaveston held the Castle in the fourteenth century, and also the Earl of Rutland, son of Edmund of Langley; it was in the occupation of a number of persons subsequently but fell to the Crown in the fifteenth century. It is intimately associated with the unfortunate Charles I., who made three distinct attempts to escape from its confinement.

The mound of the Norman Castle was enclosed by a Shell Keep by Richard de Redvers; it is an irregular polygon of eleven faces and sixty feet in diameter, the walls being of enormous strength and thickness. Entrance is gained by a long flight of steps leading to a passage defended by a portcullis and double gates. The Keep encloses one of the two Castle wells.

Very extensive additions were made by Anthony, Lord Scales, who was Lord of the Castle in 1474. The majestic gateway dates from his time; it is a fine and impressive entrance, flanked by two lofty cylindrical towers with a good example of machicolation between the towers, added late in the fifteenth century. The ruins of the apartments occupied by the royal

prisoner lie to the north of the enclosure. In the reign of Queen Elizabeth an elaborate system of fortification was carried out by an Italian engineer, in view of the advent of the Spanish Armada, but was never put to use. After the Restoration many regrettable alterations and additions were made by Lord Cutts, with a view to modernising it, but some of these have been modified recently by the Crown. The picturesqueness of the ruins and their surroundings are an acknowledged feature of the island, and few visit the latter without seeing this venerable relic of the past.

CHAPTER VI

THE RECTANGULAR KEEP, *c.* 1100–1200

We have seen that the Shell Keep was a logical sequence in the development of a castle which had been originally erected upon the Motte and Bailey plan, and the question will naturally suggest itself as to the nature of Castles which the Normans built in the twelfth century upon a site not previously occupied. This was the Rectangular Keep with its fortified enclosure, answering approximately to the Shell Keep and the bailey.

Rectangular Keeps had been prominent in French fortifications for at least thirty years before the Norman Conquest, but the introduction of the defence into England was slow and protracted. Only two examples are extant which preceded the death of William I., namely, the White Tower of London, and the Keep at

Colchester. This type of castle has come to be associated with the Normans, to the practical exclusion of the much greater number of Motte and Bailey and Shell Keep fortalices which are equally connected with their occupation; probably the dignified appearance of the massive Keep, with its impressive adjuncts and surroundings, are responsible for the popular belief.

The Keep itself was essentially a new feature in the art of fortification, a medieval method of resisting the special form of attack prevailing at that period. The enclosure was directly derived from the rectangular *castra* of Roman times, descended through the Anglo-Saxon burh and the Norman bailey. Probably of all the military structures which the world has seen, the Rectangular Keep is the grandest in impressive appearance and dimensions, combined as it is with simplicity of outline; it is also the most durable in workmanship by its adamantine strength and structural proportions. The walls are generally from 8 to 14 feet thick, and, at the base, sometimes even 20 feet, while a few still standing are reputed to have the ground floor solid. The enormous thickness of walls in medieval buildings must not always be taken as

an indication of strength; in a large number of cases they consist of two walls at some distance apart, with the intermediate space filled in with rubble and a certain amount of mortar, generally inferior in quality, so that at times when the outer casing is pierced, the interior core pours out through the opening like grain from a sack. They afforded, however, facilities for the construction of passages in the wall itself, and also for small chambers, while the exterior portion of the wall was invariably strengthened by flat pilaster buttresses. The entrances to these Keeps were usually on the first floor, access being gained by means of a ladder or wooden gangway, the doorway being of small dimensions. A series of narrow vertical slits in the walls, splayed out into embrasures inside, served the purpose of windows, and also as oillets or arbalesteria, for the discharge of arrows and bolts.

Later examples of the Keep are furnished with forebuildings adapted to protect the vulnerable portion, the entrance. These forebuildings were especially designed to present unusual difficulties of penetration; drawbridges, meurtriers, oubliettes, and other devices being opposed to intruders, while passages leading to every

spot except those desired were constructed in the walls to mislead and divert attacks from inrushing assailants. One of the best examples is that at Newcastle-upon-Tyne, built *c.* 1172; it has two towers and contains a chapel, the entrance to the Keep itself being from the roof which forms an open platform.



FOREBUILDING OF THE KEEP, BERKELEY.

But by far the best example of a forebuilding is to be found at Dover, standing against the eastern face of the great Keep. It is so designed that three separate protections are afforded to the stairway leading into the Keep, the base, centre, and landing stage having each a separate tower for its defence. The entrance upon the first floor is barred by a door of formidable thickness and great strength; upon the first floor occurs the Chapel, and a view into it is obtained from the stairway, while a small chapel or oratory is placed overhead upon the second floor. A well, now disused, formerly had its

opening in the third floor. The actual entrance to the Keep occurs upon the second floor, although an ancient one, now blocked up, opened to it from the first floor.

Dover Castle, from its commanding position at the narrowest part of the English Channel, has for many centuries occupied one of the most prominent positions among the fortresses of England. It stands upon a chalk knoll to the east of the town, and by nature and art is practically severed from the adjacent land, whether high or low. From traces, which are now almost entirely obliterated, it is concluded that a Celtic defence primarily existed upon the summit; this was followed after A.D. 42 by a Roman station, the chief remains of which are to-day embodied in the well-known Pharos, a companion probably to that erected in A.D. 40 by Caligula upon the Gallic shore. Traces of the Roman occupation, apart from the lighthouse, are very scanty, and are overshadowed by the Saxon work, although it is open to doubt whether the development of the latter was carried out to any elaborate extent.

It is with the Norman period that the history proper of the Castle commences. It surrendered



DOVER CASTLE, KENT.

without opposition to the Conqueror, who added to the defences, and it was able to resist a sharp attack upon it in 1074 when the men of Kent rose against William. Shortly after this the town was surrounded by walls.

Although Dover was rightly considered as the key of England, the fortress is not connected with many of the great events which have gone to



DOVER CASTLE.

make the history of England. It has always been in the possession of the Crown and governed by a Constable. Hubert de Burgh defended it against the Dauphin in the time of King John, and, although Louis built many trebuchets and imported minor petraries from France, these, combined with beffrois, sows, and rams, failed to shake his determined defence. Dover appears to have played but little part in subsequent history,

probably through its falling into ruin by neglect during the "Wars of the Roses" and of the great Rebellion.

The Keep is a fine example, dating from 1182, and essentially Norman; it is nearly 100 feet square, and rises to a height of 95 feet. It presents a commanding feature from the sea as the summit is nearly 500 feet above high water. The usual Norman pilaster buttresses are apparent at the angles and in the centres of three of the faces. The Keep walls are of most unusual thickness, in parts exceeding 20 feet, but these are honeycombed by a number of small chambers and passages. Only loopholes admit light to the lower stage, the more important rooms being upon the second floor. The Keep is provided with two wells, not contained, as usual, in the great transverse wall which divides the building into two distinct portions, but in the thickness of the eastern wall.

Subsequent defences have taken the form of massive curtains defending the enceinte, which encloses an area of 35 acres, a special feature being the large number of towers, round-fronted or square, which are liberally scattered along it. The general shape now developed may claim

to be that of the Concentric Fortress, although it is classified among the Rectangular Keeps. Its adaptation to up-to-date requirements has in many cases led to the obliteration of many ancient features formerly distinguishing it; these, although undoubtedly justifiable, are to be regretted from the antiquarian point of view.

In order to convey an idea of the internal economy of a Keep and the disposition of the various apartments the diagram appearing on p. 100 may be of use. It shows the five successive floors of Hedingham Keep, Essex, which dates from about 1140. Upon the ground floor plan the great thickness of the walls, about 12 feet, is plainly apparent with the narrow embrasures giving light. At the base the walls batter slightly for a few feet, not shown on plan. The well-stair commences in the basement and extends to all the floors. The first floor or entrance story has a small round-headed doorway, the arch of which is ornamented with zigzag moulding; steps now lead up the face of the wall to it, but formerly it opened from a forebuilding of which traces still remain. Here the honeycombing of the walls commences which is so marked a feature in Keeps. The embrasures have very narrow openings externally

but wider than on the ground floor. The central dividing wall here is pierced by an arch and hence shown dotted in plan. On the second floor is the great Hall of Audience; across the centre is built a remarkably fine arch carried upon Norman shafts with scollop capitals and moulded bases. The fireplace and also the window openings have zigzag mouldings around the circular heads. The upper part of this room has a gallery running round it shown as the third floor plan; the windows are doubled by a dividing pier and openings admit of a view into the Audience Chamber. Above is the fourth floor low in height, with zigzag moulding round the external window heads. Over this story is the flat roof and the turrets at the corners, two of which still remain. The floors and the roof were all supported upon wooden beams.

Hedingham Castle was the residence of the de Vere family for about six centuries. King John besieged and captured it in 1216, but it underwent no subsequent siege. The outer fortifications were demolished in the reign of Elizabeth and only the Keep remains at the present time.

The ramparts upon the summit of a Rectangular Keep were carried upon the walls themselves, the latter, as a rule, being sufficiently

thick for the purpose without corbelling outwards. The parapet was either continuous or embattled. A roof, at times covered with lead, was carried over the central opening, and the uppermost floors were invariably borne upon massive wooden joists. The lowest floor was generally free from timber, being constructed of masonry carried upon the arches of a crypt, but in those cases where the whole structure was borne upon a solid foundation of masonry spread upon the entire area of the site, this might be dispensed with. Some existing crypts are not coeval with the building, but were added at a later date, that at Richmond, for example, dates from the Decorated period. As a general rule the Keep contained a well which was sunk through the foundations and carried upwards in the central dividing wall to the various floors, but examples occur where it is placed in the enclosure. Most Keeps were furnished with an oratory or private chapel, one of the most famous being that in the Tower of London, while those at Newcastle-upon-Tyne, Colchester, and Guildford are well known. In the later type of Keep this feature is absent, the tendency being to erect all buildings used during times of peace within the enclosure.

The reduction of such a Keep as we have outlined was almost impossible in the Medieval age except by famine; the outer minor defences, however, were not proof against the missiles of the trebuchet, onager, and other petraries, and would invariably succumb. But with regard to the massive structure of the Keep, the largest stones could be hurled with but small results; and the few narrow openings in its walls presented but meagre opportunities for a successful admission of the falarica, quarrel, or arrow. To carry it by direct assault would be at all times a forlorn hope.

We thus see that the Rectangular Keep was essentially a structure for passive defence; and during the time that provisions lasted it was practically impregnable. Built upon the living rock, as they generally were, it was an impossibility to mine them; even if attempted, mine could be met with counter-mine, and the ram and sow might in vain essay to make any impression upon such solid masonry. At the same time the garrison was to a certain extent incapable of inflicting much damage upon the besiegers except in case of assault; the steep shingle roof afforded no place for a military

engine, and but scanty facilities for storage of rocks, stones, beams, and other weighty missiles for dropping upon assailants. The narrow entrance into the Keep prevented an effective sortie, and, if attempted, was a source of danger in retreat. During the three months spent by King John, in 1215, before the Keep at Rochester, his military engines produced practically no result upon it, but an effective mine succeeded in bringing down the masonry of one of the lower angles, and eventually part of the tower itself.

The great advantages perceivable in a solid Keep were so apparent that the addition of this feature to many castles of the Motte and Bailey pattern was deemed advisable, but only in a few places did the Keep stand upon the mound; Nottingham is an exception, but in nearly all other examples they occupied new sites, the tremendous weight of the structure rendering it inadvisable to trust it in that position. The superiority of the Keep over the Motte and Bailey Castle was well exemplified in 1102, when Robert of Bellesme, Earl of Shrewsbury, broke into rebellion against King Henry I. He possessed a fortress of the Motte and Bailey type at Quatford on the Severn, but this "Devil

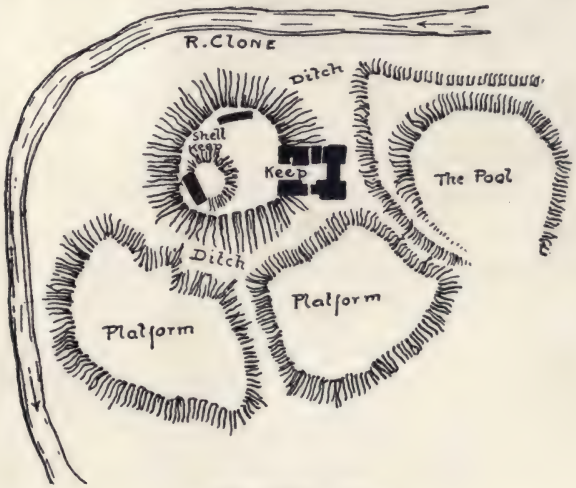
of Bellesme," as he was termed, had no confidence in his father's fortress, and transferred the stones higher up the river where, in the short period of twelve months, he built the imposing Keep whose massive remains, although sadly shattered at the time of the Commonwealth, still excite our admiration. It is erected upon a rocky site, protected by ravines upon three sides, and overhanging the river Severn upon the fourth. When besieged by the King it withstood all the efforts of the formidable petraries brought to bear upon it, and appears to have been practically uninjured when, at the expiration of a month, a portion of the garrison became disaffected by reason of the threatening nature of the royal messages, and managed to secure its surrender.

When a Keep was added to a castle of the Motte and Bailey type there does not appear to have been any regular rule as to its position. At Guildford it was erected upon the motte (though a little way down the slope), and also at Nottingham, Pickering, and York; at Clun in Shropshire the Keep was built partly on the motte, occupying the eastern slope, the mound apparently bearing a defence of the Shell Keep pattern at the same time. Gloucester Castle has



ROCHESTER CASTLE, KENT.

been entirely destroyed in order to make room for a modern prison, but from existing records we learn that the Keep was an addition, occupying the centre of the former bailey, while the building at Newcastle also stood distinct from the mound. The Keep at Oxford stands upon the



CLUN CASTLE, SALOP.

enceinte at some distance from the Shell Keep, while at Rochester and Canterbury the new additions were erected outside the original castle.

In the reign of the Conqueror and his immediate descendants, the rapid building of castles for overawing the defeated Saxons was a

matter of Crown policy, but with the settlement of the Kingdom, and the rise into power of Norman nobles waxing rich and powerful upon their estates, restrictions became imperative if the royal prerogatives were not to be set at nought. Consequently, special licences to build and crenellate had to be obtained before erecting, or adding to the existing defences of, a castle, and the rigorous insistence upon this law was readily recognised and maintained by all strong rulers of the kingdom. When, however, a weak monarch came to the throne, or internal dissensions occurred, the Norman barons invariably seized the opportunity thus afforded, and a large increase of these fortalices sprang into existence. The most remarkable example was during the eighteen years of strife wherein King Stephen was struggling for his crown with the forces of Queen Maud. In order to propitiate the nobles and secure their services, the King gave licences with a reckless indifference to consequences, and many scores of castles were erected under these permissions, but a still greater number with no licence at all. These latter became known as "adulterine" or spurious castles; the total number built during this

period of anarchy is said to have been more than one thousand, but more modern computation places the number at about seven hundred. Stephen, when too late, perceived the mischief attending the multiplication of these citadels, and attempted to reduce the evil by destroying those belonging to the clergy. The essay proved to be a mistake, and during the disorder that ensued, the land became a prey to anarchy of the most violent kind, each baron or leader of mercenaries doing that which was right in his own eyes, and retreating to the safe precincts of his castle when in difficulties.

Of the nature of these unlicensed strongholds there is considerable doubt, but a great probability exists that they were of very rapid construction and, therefore, not of the Rectangular Keep type, but of the Motte and Bailey, or of the Shell Keep pattern. That a large amount of time had been spent in their erection seems to be negatived by the fact that upon the accession of Henry II. the great majority of "adulterine" castles were destroyed in the course of a few months. This would have been impossible if solid masonry erections were in question, but hastily improvised defences built by forced, and

therefore, probably, unskilled labour, would not present great difficulties. In all likelihood a great number of the earthworks which occur in England, and have not been assigned to any particular date, may owe their origin to this disturbed period, especially those of the Motte and Bailey type. Upon the whole, we can hardly look upon the reign of King Stephen as a period distinguished by an advance in the art of castle-building, but rather as one of temporary retrogression to elementary types.

With the advent of the second half of the twelfth century the Castle began to show in many details the influence of the Early English style of architecture, though ornamentation is singularly rare in early castellation compared with the lavish wealth bestowed at the same time upon ecclesiastical buildings. The Norman style was still adhered to in the main outlines, but the external pilasters developed to such an extent that they became buttresses, as at Clun and Dover, the masonry workmanship improved, local stone came more into use, and internal decorations, such as ribs to the vaulting, began to be introduced. It is not uncommon to find the dog-tooth ornament employed in conjunction

with contemporary work in the Norman style, but so long as the Rectangular Keep remained, the internal arrangements became, as it were, stereotyped, and were strictly adhered to. The latest styles of Rectangular Keeps carried but few, if any, suggestions of Norman architecture as they trended upon the Early English periods; thus Fonmon Castle in Glamorganshire, and Penhow in Monmouthshire, exhibited no traces of pilaster buttresses, and other features so strongly marked in earlier examples.

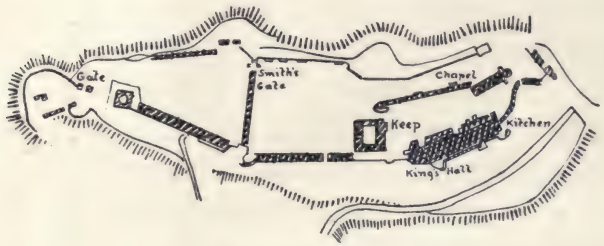
Bamborough Castle, grim, grey, and imposing, by its vastness and massive proportions, stands upon a rocky height of igneous formation on the coast of Northumberland. It is by nature a promontory fortress, and as such was seized by Ida and his Angles in 547, and who thence extended his sway over what subsequently became the kingdom of Bernicia. The castle is mentioned in 774, and was twice taken by the Danes. In 1095 the dramatic siege occurred with which Bamborough will be for ever associated. William Rufus besieged it with a formidable army, but such was the reputation of its impregnability that he would not venture upon storming it. He, therefore, had recourse

to a siege, and one great beffroi he raised was so formidable that it is mentioned by name, *malvoisin*; this he advanced to the walls, and so closely that conversation could easily be exchanged between the rival combatants. The rebel baron, de Mowbray, left the Castle in charge of his wife, with the intention of procuring assistance, but was captured in an attempt upon Newcastle. By the King's orders he was brought to Bamborough and exposed to the gaze of the garrison: upon a royal threat to put out the eyes of his captive unless the Castle surrendered at once, the heroic Matilda de l'Aigle, who had continued the defence with the utmost success, admitted the King's forces. De Mowbray was imprisoned, but in his old age was permitted to enter the monastery of St. Alban, where he died.

Rufus appointed Eustace Fitz-John of Alnwick as castellan, and the Castle, in the time of Stephen, successfully resisted an inroad of David, King of Scotland. In 1164 the great Keep was erected by Henry II., and from that period the Constableship of Bamborough became a royal appointment.

During the Wars of the Roses, Bamborough played an important part. First in Yorkist

possession it was captured by Queen Margaret, who placed a garrison of three hundred men there under the Duke of Somerset. Edward IV. with ten thousand men besieged Alnwick, Bamborough, and Dunstanburgh, the Kingmaker in person conducting the operations. The Castle was surrendered, and Sir Ralph Grey was left in charge, but betrayed his trust and admitted



BAMBOROUGH CASTLE.

Margaret in 1463. In 1464 he was surrounded by Warwick's army, and a fierce bombardment was maintained which did enormous damage, Grey being injured by one of the falling towers; he recovered, however, but was subsequently executed at Doncaster. In the sixteenth century the Castle fell into disrepair, but in 1757 a partial restoration occurred, and subsequently portions of it were turned into a school for girls;

afterwards, however, it was purchased by the late Lord Armstrong.

There are three wards within the enceinte of the Castle which encloses about 5 acres of land, the middle ward and that to the east being at one time covered by the buildings of the ancient town. The great Keep is similar to those at Dover and London, but originally possessed only two stories. It is erected upon a solid mass of masonry, and the entrance leads by a passage in the thickness of the wall into the second story. There is no forebuilding as the Keep is of a date anterior to their introduction. The lower part of the walls is about 11 feet thick, and in the basement occurs the well over which appears a great vaulted hall.

Rochester Castle.—The two great Royal Castles in Kent were those at Canterbury and Rochester, and of these Rochester was the more important and boasts of a richer history. The Keeps are practically all that remain of each, and Rochester again asserts the pre-eminence in respect to the importance of present remains. The site had been previously occupied by the Romans and the Saxons when, immediately subsequent to the Conquest, a Motte and Bailey Castle was reared



RICHMOND CASTLE, YORKSHIRE

by the Normans, followed shortly afterwards by a massive encircling wall, enclosing an area measuring about 160 yards long by 130 yards broad. A portion of this wall was erected close to the river, and a deep ditch protected the remaining three sides.

It was thus, at the demise of the Conqueror, a very strong fortress, and that much-hated half-brother of the late King, Bishop Odo of Bayeux, seized it, but was besieged and captured by Rufus after a resistance of six weeks. He was sent to Tonbridge Castle and subsequently liberated. In 1126 Henry I. granted the Constableship of the Castle to Walter de Corbeuil, Archbishop of Canterbury, and permitted him to erect a tower, probably the existing Keep.

In 1215, when in the possession of William d'Albini, who was acting for the Barons, King John sat down before the Castle with a formidable array of trebuchets, and battered it for three long months. Apparently he had greater success by undermining than by missile-throwing, the tower at the south-east angle being partially brought down by a mine, together with other parts of the chief defences. This extensive damage probably helped it to fall into the hands

of the Dauphin the next year. In 1264 it resisted a vigorous assault from the forces of Simon de Montfort, and during the Wat Tyler rebellion was besieged and partially captured.

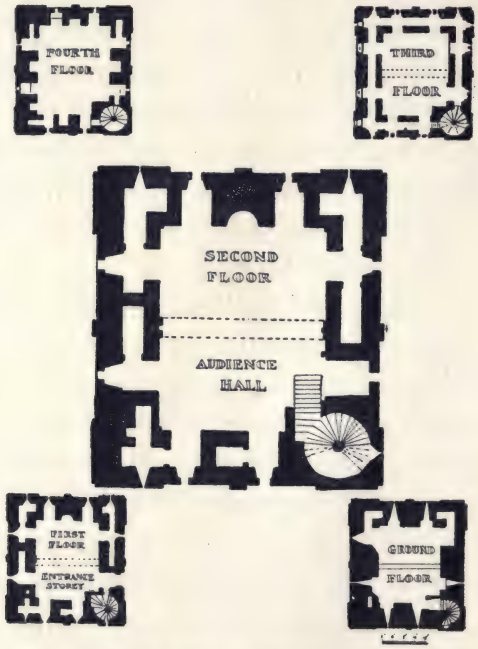
Edward IV. repaired it, but subsequently it fell into a state of neglect, and has not seen any military operations since. It is now in the possession of the Corporation of Rochester, and used as a place of public recreation.

The great Keep is naturally the chief object of interest; it is 113 feet in height, and about 70 feet square. The thickness of its walls varies from 12 feet at the base to 10 feet at the top, where the angle turrets rise over a dozen feet above the main battlements. It is divided, like the Tower of London, into two portions by a transverse wall rising to the total height, and carrying in its centre the main shaft of the Castle well, which was arranged to deliver water at every floor. The usual flat pilasters appear upon the external walls, and the two lower stories are pierced by loopholes only. A fore-building with the usual complicated contrivances protects the main entrance. The aspect of the venerable Keep, conjoined to the tower and turrets of the adjacent Cathedral, form a delight-

ful combination of the military and ecclesiastical architecture of former ages.

Richmond Castle.—The Castle of Richmond is beautifully situated upon high ground overlooking the river Swale, in Yorkshire, but, although the fortunes of the Castle extend to the time of the Conquest, and many noble families are connected with its history, it has played no important part whatever in the making of history, either in its own country or that of England. It has never seen an arrow launched in anger, or received a ball from opposing ordnance. It was erected by Alan Fergeant, who in 1071 commenced operations and encircled the triangular site with a curtain wall. The Keep was erected by his brother about the year 1100; it is approximately 50 feet square and 100 feet high, with the usual Norman pilasters, but deeper than formerly, strengthening the fronts and angles, while each of the latter bears a turret of two stages upon the summit. The only entrance is by a door on the south face, from which a narrow stairway leads to the floor above. The ground floor was vaulted in the reign of Edward I., the same as that at Newcastle. A chapel was built, about 1278, adjacent

to it, by John, Earl of Richmond, who was killed at Lyons in 1304, and various other domestic buildings occur near it. A circular barbican protects the main entrance to the Castle, while in the south-east angle of the enceinte wall an imposing rectangular tower has been built, containing the remains of an ancient postern.



PLANS OF THE KEEP OF HEDINGHAM CASTLE.

Reproduced by permission of the Architectural Association from the Sketch Book of Hedingham Castle.

CHAPTER VII

THE CYLINDRICAL KEEP, *c.* 1170–1250

THE latter part of the twelfth century and the earlier portion of the thirteenth was marked by the introduction of the Cylindrical Keep, forming a transition or connecting link between the Shell and the Rectangular Keeps of the previous period, and the remarkable development of castellation which occurred in the thirteenth century. The latter, however, must not be considered in the light of a sudden revolutionary change, inasmuch as many indications occur in the castles of the twelfth century which exhibit a tendency to break through the conventionalism then prevailing, and to produce works of a more complex character, suited to the progress in military methods of attack. The introduction of the Cylindrical Keep was one of these innovations; although it did not remedy the great

fault inherent in Keeps generally, viz. that of impotence with regard to driving off the besiegers, yet it furnished a method which enabled the builder to effect a considerable economy in material and labour, while at the same time affording that strenuous passive resistance to assault which characterised the former styles. It is probable that King Henry II. was chiefly responsible for the introduction of the Cylindrical Keep, as by reason of his French birth he was acquainted with a number of foreign castles having citadels built upon this plan. These Cylindrical Keeps were likewise known as Donjons and Juliets, and attained to a degree of perfection upon the Continent which was never reached in the British Isles. The example at Coucy is probably the finest abroad.

The advantages which may be claimed for the Cylindrical Keep, apart from its lessened cost of construction, are the increased solidity, and the great difficulty in breaching it, or bringing it down by a mine. By vaulting each floor the resistance of the structure was increased; by enclosing the upper part in a similar manner also, the danger of fire from incendiary missiles launched upon the roof was practically nullified.

A disadvantage, however, lay in the fact that the besieged could not concentrate a discharge of missiles against assailants at one part of the base without exposing themselves to the enemy's archery. This was to a great extent rectified by the bretasche, which, though in use previously, became established as a regular defence at this period.

These were timber galleries encircling the outer part of the tower at its summit, supported in position by strong beams of wood inserted in holes made for the purpose, and strengthened by struts resting upon corbels. Upon this foundation a wooden gallery was built, covered in by a sloping roof resting against the walls, and generally enclosing the summit of the wall. In suitable places the gallery was loop-holed for archers and crossbowmen, while through openings in the floor stones and other missiles could be dropped upon assailants at the foot of the Keep. It could be entered from the battlements behind, where stores of ammunition were placed.

At times two bretasches were in use, one above the other; the upper projected a greater distance from the walls so as to avoid injury

to the lower. The unfinished appearance of the tops of many towers can be explained by their having been covered with a bretasche in former times, although this defence was not kept in position permanently but usually built upon the approach of danger. The machicoulis and alurs of a later date were imitations in stone of the wooden bretasche. At Coucy these defences were placed about 180 feet from the ground, and the nerve displayed by the defenders working at such a giddy height excites admiration.

The introduction of machicolation proper into England occurred in the latter part of the thirteenth century and became a prominent feature at that period. The faults inherent in the bretasche were the feeble resistance which it offered to missiles launched from the mangonels of the besiegers; the destruction of one part by a well-aimed stone would naturally expose the remaining defenders to archery, besides seriously weakening the rest of the structure, which depended to a great extent upon its continuity for safety.

Another weakness was the perishable nature of the material, which required constant renova-



CARNARVON CASTLE, CARNARVONSHIRE.

tion and addition, and to this circumstance may be attributed the fact that examples of the true medieval bretasche are extremely rare at the present day. A fragment remains over one of the gates at Coucy, while the position of the main beam may be seen upon the outer gate of Leeds Castle. At Norham Castle a small doorway appears in the upper part of the square Keep, the conjectured use for which is that it gave access to the bretasche. In many castles of the twelfth century still remaining a line of small openings in the outer wall at the top is visible; they indicate the position of the former bretasche, and are caused by the removal of stones for the insertion of the projecting beams. Notwithstanding the advantages inherent in the Cylindrical Keep, which prompted their erection in many parts of France and other parts of the Continent, we do not find one example forming an integral part in a British Castle of the first class.

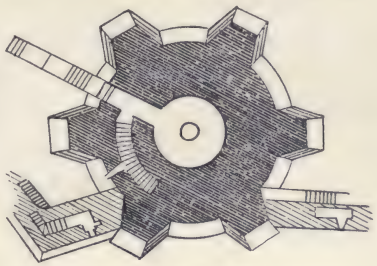
Cylindrical Keeps were not always of a stereotyped form, and among the comparatively few erected in England there is marked diversity in detail. Launceston, for example, really consists of a triple defence; two outermost rings of walling, one of which is a dozen feet thick and

nearly 30 feet in height, effectually prevent any attempt at mining the Keep proper, which stands a few feet within the second ring. It is now only a shell, but timber flooring once divided it into three stories. The walls are nearly 50 feet in height, about 10 feet thick at the base, and stand in a ring whose diameter is nearly 20 feet. The open spaces around the Keep were formerly covered by roofing.

Richard, King of the Romans and brother of Henry III., is generally credited with raising the Launceston Keep and also the companion one at Restormel. The Keep at Barnard Castle is remarkable for the huge projecting triangular spur, which, springing from the soil, rises to within a few feet of the parapet. The floors were vaulted. This circular Keep is about 50 feet in height and 40 feet wide. Pembroke Keep, on the other hand, rises without buttress or spur or concentric walling straight from a battering base at the ground-level to a height of about 70 feet to the spring of the vaulted roof. It trusted apparently to the enormous thickness of its walls, 20 feet at the base, to defy any attempts at mining.

Conisborough Castle possesses the most re-

markable Keep of the cylindrical type in the British Isles, both by reason of its extraordinary plan and rare contour. It is a gigantic cylinder nearly 70 feet in diameter, and tapering upwards to a height of over 90 feet. Upon the exterior six enormous buttresses are arranged symmetrically round the face, projecting 9 feet from the surface and being 16 feet wide where they support the cylinder. They diminish in width, however, as they recede from it. These buttresses are carried up the whole height of the Keep, and thus, combined as they are with a massive base of masonry upon which the tower stands, and forming an integral portion of the wall which is about 12 feet thick, we have what is probably the most efficient protection against the deadly mine ever devised as a protection to a British Castle. It may be compared to six enormous spurs, the blowing up of one or even two but little affecting the stability of the remainder.



GROUND PLAN OF CONISBOROUGH KEEP.

The entrance to the Keep is only a small square aperture placed in the first floor and approached by a long flight of steps in which at one time a drawbridge occurred. The ground floor contains the well and is entered by means



CONISBOROUGH.

of a trap-door in the vaulted ceiling. The buttresses are excavated in places to form chambers, and in one is situated the oratory described by Scott in *Ivanhoe*. It is beautifully vaulted in the Early English style, with carved capitals and bases to the supporting shafts. This grand relic of the feudal period was probably built in the reign of Richard I.

by Hamelin Plantagenet, the natural brother of King Henry II., who had married into the de Warrenne family, the rich Earls of Surrey.

Another variety of the Cylindrical Keep was that at Orford, in Suffolk, which possessed a cylindrical shaft similar to that at Conisborough, and was supported by three minor towers symmetrically arranged and carried above the battlements. This Keep was protected at the base by a massive wall with a ditch between the wall and the Castle base, and probably suggested the Conisborough Keep and also that at Warkworth, while those at Wallingford, York and Pontefract approximated to the same ideal.

CHAPTER VIII

THE CONCENTRIC CASTLE, *c.* 1250, TO THE CASTELLATED MANSION PERIOD

THE inception of the concentric idea in castellation must not be ascribed to the English builders of the second half of the thirteenth century, inasmuch as the plan is essentially oriental and appeared in the Levant before 1200. Thus Château Gaillard, built by Richard I. in 1196 upon the banks of the Seine near Les Andelys, is based essentially upon the concentric type, though it does not absolutely conform to that ideal owing to the configuration of the ground. That crusading monarch was among the first to recognise the possibilities of the Saracenic form and based this castle upon it. Upon the only side where it could be attacked it offered first an outer triangular-shaped ward, with an encircling wall, having five towers upon its enceinte.

Between this and the second ward was a formidable ditch, 30 feet in depth, the wall standing upon the brink of the scarp; this second ward was of large dimensions with five towers upon its walls, which were practically built upon the edge of precipices. It was roughly hexagonal in shape and contained the inner ward, partially circular in outline and surrounded by a ditch. The walls of this ward were lofty and faced with bastions segmental in plan, thus embodying the prevailing belief that angles and corners were more vulnerable than curved surfaces. Inside this ward stood the Keep, forming the fourth successive line of defence to be overcome. The Keep or Donjon is splayed outwards at the base, a device often adopted for projecting missiles among the assailants when dropped from above, and also for greater strength. Probably the earliest examples of machicoulis are found upon this Keep. This formidable fortress fell by a combination of mining, filling up of the great ditch, battering the Keep, and escalading the inner ward, after pounding the curtain walls with perriers.

The thousands of warriors returning from the many crusades were well acquainted with the

Concentric Castle, having in many cases been detained before the walls of an eastern city built upon a similar design. The difficulty and danger in attacking such a place were well known to them, and we can only ascribe the question of cost as the chief reason for the non-adoption of the idea at an earlier period.

At Constantinople the crusading hosts before the city found themselves confronted by a comparatively low fortified wall, bristling with impediments; within it, at the distance of some hundreds of feet, arose another and taller wall, while beyond that again a third wall, the highest of all, appeared. These walls extended for more than three miles upon the western side, with one hundred towers; all were embattled, and they offered a stupendous scene to the wondering eyes of the Crusaders as they vanished in grand perspective into the distance. There is no castle in England which presents more than three hundred yards of continual front. The capture of the first defence of the eastern capital by no means imperilled the integrity of the second, while the prospective losses of the assailants when confined in the narrow space between the first and second lines was appalling to con-



CASTLE RUSHEN, ISLE OF MAN.

template. The same difficulty would occur with regard to the second and third lines of defence, and it is small wonder that the leaders paused in a projected attack upon so formidable an obstacle.

The essential principles underlying the construction of a castle erected upon the concentric plan were :—

1. That the natural features of the selected site should be adapted and made part of the defences, and that no rigid plan of the ground occupied, based upon former principles of castellation, should be strictly followed.

2. That a series of defences independent and complete in themselves should be presented in turn to an assault, the capture of one by no means entailing that of another.

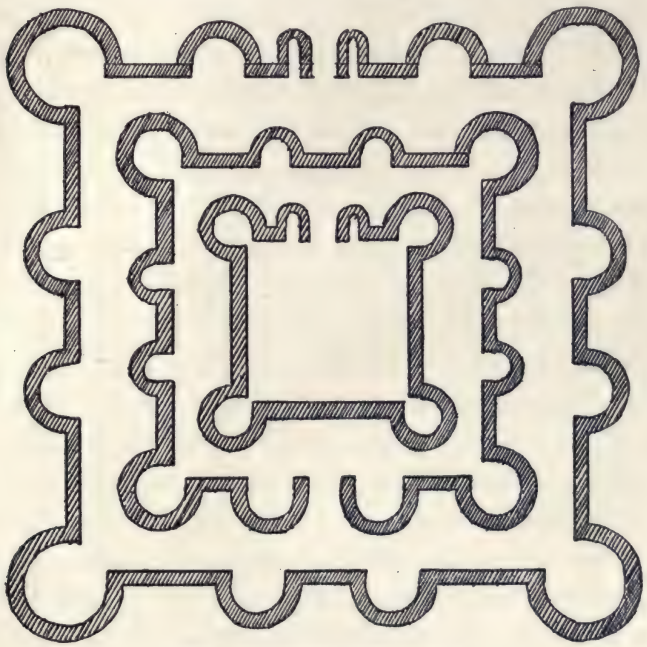
The castle-builders of the second half of the thirteenth century rigidly adhered to the principles embodied in the first clause given above ; they did not produce a structure of the Motte and Bailey, or the Keep and Base-court types, with little regard to the situation and configuration of the ground, but made their plans with the utmost care, embracing every advantage which the site presented. As a

necessary sequence the ground plan of one Concentric Castle differs from every other, and it is only by a general summary of the ideas prevailing that any comparison can be made.

The second clause naturally suggested a concentric plan whereby each defence was placed within the other, the strongest of all naturally being in the centre. But as most of the English castles were rendered concentric by means of additions to buildings previously existing, the pure concentric ideal is seldom reached except in those structures reared entirely at that period, the others attained it more or less by developing conditions already obtaining.

The ideal concentric outline may be gleaned from the accompanying plan, where the three entrances are a special feature, each being placed as far as possible from the one adjacent. By this device the assailants who had managed to capture the outer enceinte would be compelled to pass under one half of the second line of towers and curtain walls before reaching the entrance pierced through them, being all the time subjected to a plunging fire of deadly missiles. The same would occur if the second line were captured. The gates were in all cases

flanked by defensive towers, and generally reached by a drawbridge which could be raised before the entrance archway; this was narrow



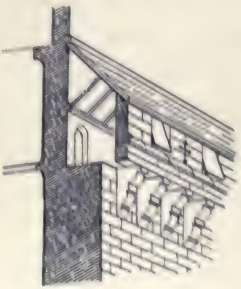
THE IDEAL CONCENTRIC CASTLE.

and defended by one or more portcullises, while a strong gate, usually sheathed with iron, was placed at the entrance immediately behind the raised drawbridge. If these formidable obstacles were overcome and the first part of the passage

captured the inner portcullis or portcullises had to be forced, but the assailants would in the meantime be subjected to a galling discharge of arrows and bolts from the narrow loopholes on either side, which were pierced in the walls of rooms whose only entrances were from the inner courtyard or from the ramparts. In the vaulted roof of the passage also circular openings were built, termed "meurtriers," or murderers, through which melted lead, hot water or oil, and other liquids could be poured upon the struggling mass of assailants below. From the formidable nature of the defence it may readily be understood that direct assaults of castles built upon the concentric ideal were limited, the besiegers contenting themselves with waiting until famine had done its work, or treachery within the walls allowed them to enter. The project of capturing three strong castles, one within the other, was a prospect sufficient to daunt any ordinary commander, and so long as the besieged could count upon a friendly army in the field outside, the loyalty of the garrison, and a plentiful supply of provisions, the fortress might be relied upon to maintain its integrity.

It was during this period that machicoulis and

alurs reached their highest efficiency and development, and in every castle built after 1250 they may be found wherever extra strengthening of the defence was desirable. In some illustrated medieval romances of the second part of the thirteenth century the castle is depicted with these additions, although at times the perspective indulged in by the artist is somewhat disconcerting. Where machicolation was not adopted, probably by reason of the expense, the walls were generally corbelled outwards at the upper parts of towers and walls, thus giving a more effective control over the bases of these structures where mining or battering might be attempted. Battlementing was almost universal, and the system of piercing the merlons with arbalestraria may be assigned to this early date, although not reaching the full development it subsequently met with in the Edwardian Castles of Wales. It may be seen in illustrated manuscripts in the form of simple circular openings in the merlons. The



MACHICOULIS SUPPORTING AN ALUR.

protection of loopholes and windows by a hanging shield is likewise illustrated; it prevented the admission of arrows and bolts discharged with a high trajectory.

The maximum development of the art of castle-building in the British Isles occurred in the reign of Edward I. and is exhibited in its best form in those magnificent buildings which he erected in Wales to consolidate the conquest of that country. With the great Snowdonian range as the centre he placed a ring of fortresses at those strategic points, chosen with remarkable military perspicacity, where they would be of the utmost advantage in commanding the widest stretch of country. Criccieth and Harlech, standing upon the sites of previous strongholds, and Conway and Carnarvon upon entirely new ground, are the most prominent and famous of this encircling ring. The term "Edwardian," however, for a Concentric Castle so frequently used, is a misnomer, because some of the grandest examples of the style date from the time of Henry III.; the outer ward of the Tower of London, for example, rendered it concentric in 1240 to 1258.

The *Castle of Harlech* approaches the concentric

form so far as its position will permit, but the bold rocky promontory upon which it stands was too irregular for the complete ideal, and consequently the Castle was adapted to the site. It is practically an oblong with massive circular buttress towers at the four angles; two others defend the gateway and two smaller ones are on either side of the barbican entrance. Small watch-towers, corbelled at the summits upon false machicolations, are adjacent to the larger. The barbican lies upon the eastern side of the fortress, and was only accessible by a steep and narrow entrance after a dry ditch had been crossed. Harlech and Kidwelly are similar in not being purely concentric; each have short fronts of wall and the defences of two of the baileys are united, thus only two lines of resistance are interposed. Neither possess a donjon, the two inner wards being the last resort of the garrison.

The inaccessibility of this massive pile, perched 200 feet above the adjacent sea and producing a strangely impressive effect by reason of its grim vastness, has been repeatedly tested since its walls were first raised. Owen Glendower beat in vain against its impregnable strength and lost Mortimer, his son-in-law, before its walls. In the

Wars of the Roses, when the soul-stirring " March of the Men of Harlech " was penned, the Castle was summoned to surrender by the Yorkists, but the Constable of the time, a doughty Welshman, held out for the Lancastrian cause and made a most protracted resistance in the campaign of 1474, Harlech being the last fortress to surrender in that great struggle. In the Civil War it maintained its reputation, but was finally delivered up to Cromwell's brother-in-law.

Conway Castle, one of the most impressive and majestic of medieval fortresses in Britain, is situated in a romantic and picturesque spot at the mouth of the river Conway. It presents a perfect ideal of a fortress and a fortified town, the massive accompanying walls of the latter forming an integral portion of the defence as a whole. The town walls are over a mile in length and are in a singularly good state of preservation; there are twenty-one towers, arranged at regular intervals along this enceinte, and four gates, over one of which is a row of machicoulis, twelve in number, projecting from the upper part of the wall. It was also protected by a dry ditch and with drawbridges placed before the gateways.



LEEDS CASTLE, KENT.

The Castle occupies an irregular oblong area divided into a larger and smaller ward by a transverse wall, which is carried across at one of the narrowest parts; thus where breadth is unobtainable, as at Conway and Carnarvon, ward is set behind ward. Eight lofty circular towers are arranged at intervals around the massive curtain wall, four of them being provided with small look-out turrets upon their summits. In the larger bailey the banqueting hall and domestic apartments were placed.

The Castle and also the town fortifications were erected by King Edward I., with Henry de Elfreton as the architect; they were completed in 1284, and occupied by the King and Court in 1290, upon the occasion of a Welsh rising. The monarch, however, was nearly starved out in his fortress through an unusual flood whereby provisions were unable to be sent across the river. Previously, however, he had passed a Christmas there and the assertion that Conway was really a combination of a castle, a palace, and a pleasant residence is perfectly legitimate. Richard II. assembled his forces at Conway to resist the invasion of Bolingbroke, but was induced to leave it, and his betrayal and

lodgment in Flint Castle followed. The edifice suffered but little during the Wars of the Roses; Henry VII. repaired it where decay had taken place, and it practically remained intact until the Great Rebellion, when it suffered from two sieges, and shortly afterwards, in 1665, was despoiled of its timber, lead, and iron, and reduced to its present condition. The excellence of the masonry which characterises the Edwardian castles in Wales is perhaps in no way better exemplified than at Conway, where a portion of the base of a tower on the south side fell out bodily in recent times through being undermined, and gave much trouble before it could be broken up. It has since been restored. The protection of the Castle is now in the hands of the town authorities of Conway.

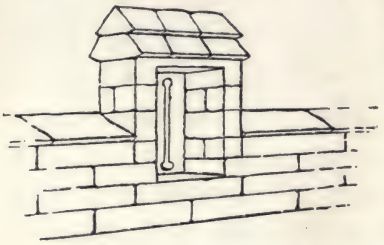
Beaumaris Castle was erected by King Edward I. about 1295, and approximates more to the concentric ideal than perhaps any other castle in Britain. The outer enceinte is an almost regular octagon, strengthened by towers at each of the angles and in the centre of each curtain, excepting the one in which the entrance gateway is placed. The inner enceinte is square in shape and of very great height, thus com-

manding the ramparts of the outer; it has the usual towers, of immense strength, and is finished with a grand array of battlements. Its position probably detracts from impressiveness, for it was designed to have the moat surrounding it filled with water at every tide from the Menai Strait, and this necessitated the selection of low ground for a site. By the arrangement of the walls two baileys are formed, the inner and outer, and the Castle affords an example of a fortress built upon the concentric ideal where the ground does not modify the detail in any way.

Carnarvon Castle may be confidently claimed as the finest example of its type in Europe. It stands upon a site previously unoccupied and was commenced by King Edward I., who raised the walls sufficiently high to cover the garrison, and completed by his son, Edward II., who carried the walls and towers to their present altitude. It is built of limestone blocks with string-course bands of dark-brown sandstone, the mouldings, doorways, and other ornamental portions also being of the same material. The plan of the Castle approaches that of a kidney form, the whole of the space enclosed forming

one ward in contradistinction to that at Conway, which is subdivided; as the ancient town of Carnarvon was surrounded by massive walls, large portions of which still remain, the area so enclosed may be looked upon as the outer bailey.

Although the enceinte of the Castle is plentifully supplied with towers which undoubtedly form the chief feature of its picturesque appearance, yet it is to be questioned if the latter added very materially to its powers of resistance when compared with the walls, which are in places over 15 feet in thickness, and of very great height, often over 100 feet. These walls contain, at the points most vulnerable to an attack, a double line of galleries traversing the thickness and leading easily into each other for mutual support. The outer walls of these passages are plentifully supplied with loopholes, and as the merlons upon the battlements are also pierced with oillets, a triple discharge of quarrels



MERLON PIERCED WITH OILLET.

and arrows could be brought to bear upon assailants by a garrison securely protected from injury. Against such a hail of missiles any attack would probably prove futile.

The moat is of great width and depth and formed no inconsiderable portion of the original defences. The main idea of the architect when planning Carnarvon Castle appears to have been to render attacks upon the general line of the enceinte impossible of success, by reason of the galleries and the thickly-set mural towers, and thus to lead the assailants to concentrate upon the chief entrance. This, however, was protected primarily by the town walls, then by a formidable moat, two massive towers, a narrow entrance furnished with no less than four portcullises, with two inner obstructions of a similar nature to be overcome ere the entrance was forced. Such an elaborate concentration of effective resistance is seldom encountered in medieval fortresses, and the fact that Carnarvon Castle has never been taken by assault, but only subdued by starvation, is amply accounted for.

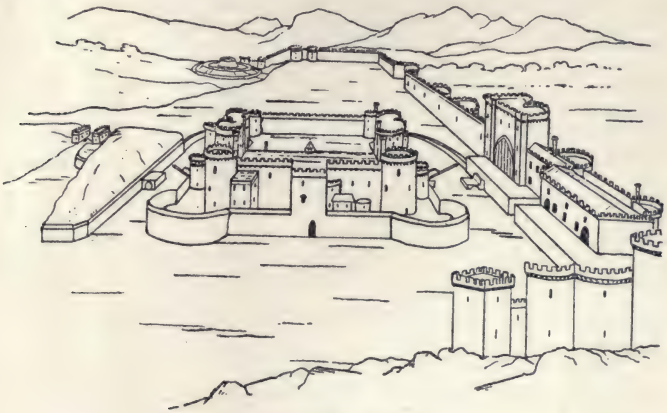
This magnificent structure has always been a Crown possession, and at the present time is preserved with a care deserving of all praise.

It narrowly escaped demolition at that period which proved so fatal to all castles in Britain, but, although the order was issued, the carrying out was delayed, and the accession of Charles II. in 1660 nullified it. The chief architectural beauty is perhaps the Eagle Tower, crowned with its three graceful turrets and boasting of the birth within its walls of the first Prince of Wales, but the traditional apartment is still problematical.

Although as we have seen the Concentric Castle is usually associated with the reign of Edward I., and the formidable strongholds in North Wales are generally cited as the perfection of the type, yet earlier attempts at the ideal had been made in Britain, and in no greater perfection than at the well-known Castle of Caerphilly in Glamorganshire, completed a year before the King came to the throne. From a military point of view it is the grandest example of the concentric ideal in our islands, and it is perhaps to be deplored that this embodiment of a medieval fortress has never been subjected to the stern arbitrament of war, and that no great military renown is associated with its history. It was only assailed once, in 1648, when the

Parliamentarians wreaked their traditional destructive tendencies upon it.

It was erected and completed in 1271 by Gilbert de Clare, Earl of Gloucester, and stands upon a mound of gravel in the middle of an artificial lake, produced by damming up two



CAERPHILLY CASTLE.
(From an old print.)

water-courses and turning the contents of a marsh into the catchment basin thus formed. The curtain of the middle ward is of no great height, that of the inner ward being thus able to dominate it. The outer ward is essentially divided into two, each forming a *tête-du-pont*.

The eastern portion, and the smaller, has a

curtain 15 feet in height and a moat of its own, the island thus formed being approached through two gatehouses from the land side, and joined to the inner ward by drawbridges. The western and outer ward is much more important than the eastern. It acts as a *tête-du-pont* the same as its companion, but contains also the chief approach to the Castle, two conspicuous towers standing on either side of a narrow entrance, thus forming a strong gatehouse. From it curtain walls of great height branch off on either side, washed by the waters of the lake, and sundry half-drum towers, and other buildings have been built abutting upon the defensive wall. Thus any assailants would have most formidable obstacles to encounter on attacking either the eastern or western faces, two moats and three successive lines of walling being opposed to their efforts.

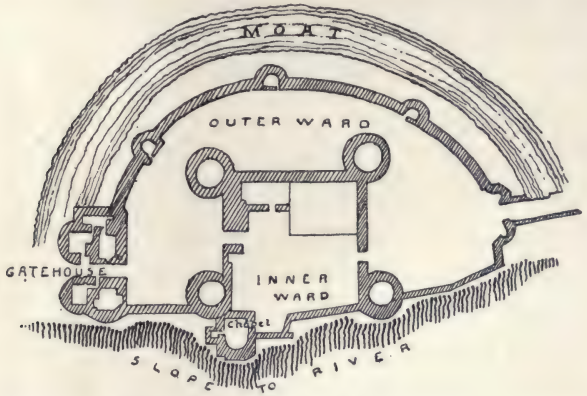
The immediate object of its erection was to overawe the Welsh Marches, but these had been reduced to order almost at the same time it was built; subsequently it but served to consolidate the peace thus secured.

A still earlier example, though not perhaps embodying all the conditions of the type, is



TOWER OF LONDON : THE MIDDLE TOWER

to be found in the neighbouring county of Carmarthen. Kidwelly Castle occupies a commanding position upon Carmarthen Bay near the estuary of the river Gwendraeth. The stream here is of considerable width and the eastern side of the castle is built upon the edge



KIDWELLY CASTLE, CARMARTHENSHIRE.

of the steep slope leading down to it; consequently no fear of an assault was to be apprehended from that quarter, and a curtain wall of no great height was deemed sufficient for the defence. This wall formed the string of a bow as it were, and the semicircular portion defending the land side had to rely upon other obstacles, such as a deep moat and a curtain set with towers. The

entrance gateway is at the southern termination of the wall and consists of two towers with a building between containing the passage; it affords rooms for soldiers on duty with two stories above, all the masonry being of the most solid description. This entrance gave upon the outer ward. The inner ward consisted of a square enclosure abutting upon the centre of the river line: it is protected by high curtains strengthened by the usual towers. It will be perceived that the deviation from the concentric consists in the coincidence of the east wall of the inner bailey with a portion of that of the outer. Its foundation dates from 1250, when Payn de Chaworth reared it.

Not far from Llandeilo, a village near Carmarthen, stand the remains of a Concentric Castle around which local tradition has woven a web of romance, asserting that all history is lost in remote antiquity and leading the imagination to run riot in conjuring up the identity of its former inmates. Upon the south side the walls stand upon a precipice with a sheer drop of probably 500 feet, while a climb of over 200 feet is necessary to reach the northern face. It is called Carreg Cennen and occupies the summit

of a height springing up from a ring of encircling hills. It stands upon an acre of ground and is of the rectangular shape; within the outer curtain stands a small inner bailey with one side coincident with that of the outer curtain overlooking the precipice, and as such is comparable to Kidwelly. There is one round tower, but the others are angular like those of Carnarvon. It was built by Rhys of Wales in the thirteenth century.

It must not be imagined that the castle-building energies of Edward I. were entirely expended upon the grand examples of his work found in North Wales, on the contrary there are many buildings to be discovered where his handiwork, or that of contemporary barons, is a prominent feature. A tendency appears to have manifested itself at that period to alter existing castles of a previous type so that they conformed in some way to the concentric ideal, and Pevensey, Chepstow, and Corfe are cases in point. In addition to Caerphilly in Glamorganshire there are many other structures in South Wales showing a very high ideal of castellation, indeed that portion of the Principality has been termed the "Land of Castles," and the appellation is

by no means undeserved. There is hardly a prominent position upon the coast, or a suitable site inland, but what has been seized upon at some period to erect a position of defence.

Pembroke Castle, with the town walls supporting it, is perhaps the most important pile to be found in this district; it embodies additions of varying dates in its massive walls and towers. The great gatehouse and circular Norman Keep are undoubtedly its chief attractions at the present day when, although shattered by powder after Cromwell's capture by means of starvation, and much subsequent spoliation, it presents one of the most imposing aspects to be found in the kingdom.

Carew Castle is deservedly celebrated for picturesqueness and affords an illustration of the use of the angle-spur at the foot of drum towers as a preventive against mining.

Cilgerran Castle occupies a position which is probably unparalleled in South Wales. It approaches very closely to the Edwardian type, but the area chosen has not entirely dominated the plan; it once possessed an inner and outer bailey with a great portcullised gatehouse and massive cylindrical towers, two of which still

stand. Pembrokeshire is essentially the centre of the castle-land of Wales, for besides those mentioned there are Manorbier, Lamphey, Narberth, Haverfordwest, Llawhaddon, Roche and many others, most of them exhibiting traces of Edwardian influence based upon Norman work.

In the upper valley of the Wye the efficiency of castles was of great importance, inasmuch as they guarded one of the great lines of incursion from the heart of Wales into the Marches; here Edwardian additions may be seen at Builth where a donjon was placed upon a motte which had already been encircled by a Shell Keep, while a circular rampart surrounding the whole bailey made a very presentable representation of the concentric ideal. At Bronllys, farther to the south, a cylindrical tower was the chief addition, while at Tretower, still farther south near Crickhowell, a Shell Keep appears to have been inserted within the remains of a previous Rectangular Keep defending the motte.

The Tower of London.—This great fortress, palace, and prison, unique among the castles of England, dates from the time of William the Conqueror. The site occupied a position upon the river Thames immediately to the east of Roman

London; the latter was surrounded by massive walls with mural towers which had subsequently been repaired by Alfred the Great. A portion of this walling undoubtedly furnished part of the western defence of the Norman citadel, inasmuch as remains have been found adjacent to the present Wakefield Tower. The wall thus adapted extended between two bastions, and possibly the first enclosure was merely stockaded.

It was, however, necessary to erect a more substantial fortress in order to overawe as well as protect London, and in 1078, William entrusted Gundulf, the architect-bishop of Rochester, with the commission. The great Keeps at Rochester and West Malling were also designed by him, and possibly he had much to do with those at Norwich, Colchester, and other places in England. To this period may also be ascribed some of the towers and part of the massive curtain wall lying to the west of the inner ward or ballium which at that period contained the royal palace, apartments for the court, and dwellings for the garrison. Possibly a narrow ditch encircled the walls on the inner line of the present spacious moat.

In 1155, the buildings were repaired by

Thomas à Becket; but to Richard I. must be ascribed the carrying out of works which materially added to the general strength. Henry III. caused additions to be made, chiefly upon the river front, which give it the characteristic appearance it presents at the present day. The well-known Traitors' Gate dates from this period, and is one of the finest examples of medieval masonry in existence. About the year 1270 the Tower began to acquire those features which subsequently rendered it an excellent example of the concentric fortress; an outer wall of circumvallation was carried completely round, with a deep and broad moat washing its face. The outer ward was formed lying between the two lines of walls, thus producing three lines of defence, the innermost being the great Keep. A small barbican, which has now disappeared, stood upon the outer edge of the moat. In the early part of the reign of Edward III. some towers were added, the chief being the Beauchamp and Bowyer. Since the period of the Commonwealth the Tower has ceased to be inhabited by royalty, the removal of the palace, which stood against the south-eastern corner of the inner ward, being probably responsible for it.

As the Tower of London has been inextricably involved in the major portion of events forming the history of England, it is obviously impossible to deal even in a cursory manner with them within the confines of this work. A few facts, however, relating to the Keep may be of interest, as it is undoubtedly the most ancient portion of the structure. It is rectangular in shape, 118 feet long by 107 feet broad; it rises to a height of 90 feet at the battlements and contains three stories. The usual Norman pilaster buttresses occur, those at the angles being continued upwards into three of the square turrets, while the remaining corner supports a large projecting circular turret containing the main staircase. The walls are of enormous thickness, ranging from 12 to 15 feet, and as usual the building is divided into two portions by a wall 10 feet thick, rising to the maximum height of the building.

The floors were originally of wood, but when Sir Christopher Wren destroyed the ancient interior features of the Keep, great brick vaults were built in the lower portion. St. John's Chapel is a magnificent gem of Early Norman ecclesiastical architecture; it stands upon the



CHEPSTOW CASTLE MONMOUTHSHIRE.

second floor, and its apsidal termination projects boldly beyond the walls of the Keep. The third floor contains the state apartments with the great Council Chamber, the walls of the chapel rising through it to the roof, and containing a mural passage and a triforium. The roof is flat and was adapted during the Tudor period for mounting artillery. The position of the original entrance to the Keep is now unknown, the present one being evidently a construction of later date. No traces of the forebuilding defending it have come to light. The internal arrangements for defence against surprise are marvellously intricate, the principal apartments being approached by mural passages so narrow that only one person could pass at a time. This was, of course, eminently desirable from a military standpoint, but inconvenient and awkward when occupied by the court.

Corfe Castle.—Seated upon an isolated chalk hill in the island of Purbeck, with a natural escarpment upon three sides where two rivers bifurcate on their way to Poole Harbour, and with a gentle slope upon the fourth side, the great castle of Corfe reared its massive front through many centuries of dramatic history,

marked more than once with touches of the tragic. The remains of its cyclopean walls and towers now lie in mighty masses over its slopes, and tell eloquently of a day when destruction only seemed to occupy the minds of men, and all that was great and beautiful from the foregoing ages was marked out for desolation and ruin. Perhaps no castle in England has suffered so much as that of Corfe.

Its site is connected by history with the Saxon dynasty, for King Edgar is said to have founded it; and here the tragic deed was perpetrated by which it is popularly known, when his son Edward the Martyr, King of the West Saxons, was treacherously murdered by Elfrida his step-mother. Such an unholy deed was a sinister incident in the birth of a castle, and appears to have thrown a gloom over its subsequent history.

Four miles to the southward rises the bold coast-line of the Dorset littoral, while northward is the great depression occupied by the waters of Poole Harbour.

It appears to have been successively a Saxon Palace, then a Norman, and afterwards an Edwardian fortress. King Stephen besieged it in

1139, Earl Baldwin de Redvers having seized it for the Empress Maud. King John used it as an arsenal for military engines and stores, and here his foul crime of starving twenty-two knights and nobles to death, whom he had captured at Mireteau in 1203, was committed. The wretched ex-King Edward II. lived here for a time before his removal to Berkeley, and it appears to have been possessed by several important historical personages before it reverted to the Crown in 1552, when it was granted to Sir Christopher Hatton. That family sold it in 1635 to Sir John Bankes, the ancestor of the present owners. The notable defence of the castle for three years by Lady Bankes against the Commonwealth forces is one of those feats which stand out bravely against the somewhat sordid history of that period.

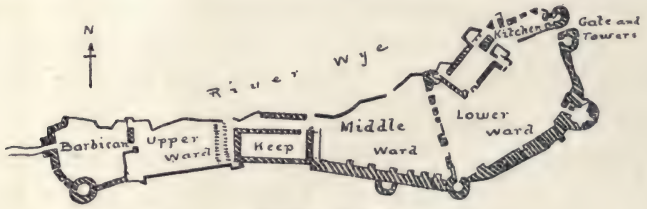
The Castle occupies an area of about three acres. The Norman work consists chiefly of a square Keep occupying the most elevated part of the hill, where possibly the Saxon Palace had been situated, and, with its enceinte, formed the innermost ward of the Castle. It is about 60 feet square, and 80 feet high, with the usual flat pilasters; the masonry is remarkably good,

formed of large squared stones obtained from some hard beds in the vicinity. The floors and apparently the roof were of wood, and have now disappeared, while the battlements also are missing.

On the east side of the Keep are the remains of the Queen's hall of Early English work, and other buildings within the inner ward appear to be of the same date. The gateway of the middle ward was overthrown by undermining, part of it has sunk and moved out of the perpendicular. The great curtain wall reaching between this gateway and the Keep is comparatively intact, and forms one of the finest defences of that description now remaining in Britain. The entrance to the outer ward has been sadly wrecked; the two drum towers have been blown forwards by the explosive force of gunpowder, the vaulting is rent, and the adjacent wall to the west overthrown. More than half of the tower called the Buttavant Tower has been blown clean away, while the minor bastions and the encircling wall generally have either disappeared or been thrown out of the perpendicular.

The order to "slight" the Castle, *i.e.* to dismantle it, was issued by the Parliament in

1646, and perhaps no fortress exists in Britain where the decree was so thoroughly carried into effect. Unnecessarily large charges of gunpowder appear to have been used, not only dislodging the masonry but shattering it; while in many places the effect was obtained by undermining and propping up with wood, which when subsequently burnt brought down the super-



CHEPSTOW CASTLE.

incumbent mass, similarly to the proceedings at the Keep of Raglan Castle.

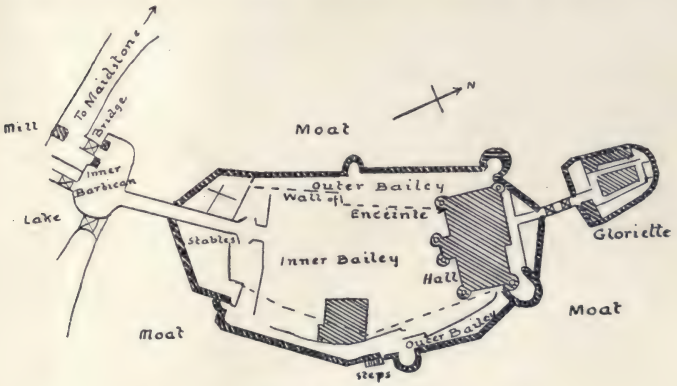
Chepstow.—The noble ruins of Chepstow Castle form one of the attractive features of the celebrated Wye valley. They stand in a grand position surmounting a vertical escarpment springing from the river and protected on the three remaining sides by ditches of formidable width and depth. The ground plan is that of an elongated parallelogram, one of the longer faces being that overlooking the river. This is sub-

divided into four courts or wards, while the whole area enclosed is about three acres. The principal living-rooms overhung the river, where the great Hall, kitchens, ladies' apartments, etc., were placed. This was a point of a quite inaccessible character, and consequently permitted of a certain amount of embellishment, such as large windows, etc.; in the remainder of the enceinte, oillets and balistraria form the chief openings.

The main entrance to the Castle is on the eastern side, under a fine Norman arch flanked by two massive circular towers; the passage was guarded by a portcullis, and two meurtrières in the groining. Not far from this entrance the lesser Hall is placed. The Clare family, Earls of Pembroke, were the earliest Norman owners of Chepstow, after William Fitz-Osborne the founder, the last of whom, Richard Strongbow, is well known in connection with the Conquest of Ireland in 1172. His daughter Isabel married one of the Bigot family, and subsequently it passed to Sir Charles Somerset, Earl of Worcester, from whom it has descended to the present owner, the Duke of Beaufort. Chepstow saw much of the Civil War, being held at first by the Royalists, but it was assailed by Colonel Morgan

in 1645 and surrendered after a siege of four days. It was again attacked in 1648, when the governor, Sir Nicholas Kemyss, and forty of the garrison were killed.

Leeds.—This castle is undoubtedly one of the most picturesque in the British Isles, and



LEEDS CASTLE, KENT.

its beautiful natural surroundings are enhanced by a rich history extending back to the Saxon Period. Here Ethelbert of Kent raised a fortification which was given to Bishop Odo at the Conquest and, at his fall, came into the Crévecœur family, who began the Norman building. It remained in their hands until the Barons' War when it reverted to the Crown, with whom it

remained for about 300 years. Edward VI. gave it to Sir Anthony St. Leger about 1550, and his descendants sold it to Sir Richard Smith. It subsequently came into the possession of the Colepeper family, from whom are descended the Martins, the present owners.

Among the many historical associations connected with the Castle is that of the frail Queen Isabella, wife of Edward II. She appeared one evening before the gateway with a large force of attendants and demanded admission; under the circumstances then obtaining the Governor, Sir Thomas Colepeper, thought fit to refuse, being without the king's orders, and, upon a display of force, saluted the visitors with a shower of arrows. She repaired to the king and so influenced him that the Castle was besieged and captured; the Castellan was hanged over the drawbridge with eleven others. At Leeds Henry V. received the Emperor Sigismund and imprisoned his step-mother Joan for practising witchcraft; subsequently, Eleanor, the wife of good Duke Humphrey of Gloucester, was tried here for the same offence in 1431.

The position of this castle was an exceedingly



LEEDS CASTLE, KENT.

suitable one in those days when water was deemed the chief method of defence. It occupies two natural rocky islands, one in the centre of a lake, and one in an artificial one on the mainland made by sluices and ditches upon which was placed the Barbicans. The Keep, or Gloriette, as it is here termed, may have been modelled out of a late Norman Shell Keep, but has been much altered by additions and restorations. It contains a chapel built in 1380; the walls rise from the water to a considerable height and are arranged round a small middle court. In it are the dining-hall, the Queen's bed-chamber, and other domestic buildings, chiefly of the time of Henry VIII.

From this island drawbridges permit of passage to the larger central island, around which a curtain wall of great strength has been built at the edge of the water with drum towers at the principal angles. Inside this was a second and concentric wall, thus forming an Inner and Outer Bailey, but only the southern gate of this has been preserved. It is probably of late Norman work. The domestic buildings occupied the northern end of the inner area, now superseded by a splendid mansion standing

upon Norman foundations. Another drawbridge gives upon the artificial island upon the mainland previously mentioned, where the Inner Barbican stood, and beyond this again was a strong and massive Outer Barbican.



WINDSOR CASTLE.

CHAPTER IX

THE CASTELLATED MANSION AND MANOR-HOUSE

THE reason for the disuse of castles is popularly attributed to the invention of gunpowder, but the introduction of cannon can hardly be accepted as entirely responsible for the decline, and we must therefore seek for other reasons which, added to the first, eventually succeeded in effecting their destruction and abandonment. The use of gunpowder was introduced into England in the first half of the fourteenth century, the first authentic date being 1327, when Edward III. employed it in his campaign against the Scots. The first reference by Froissart is in 1339, cannon being specifically mentioned, while at Cressy in 1346 there were a number of those weapons in use. These early pieces were, however, of small calibre and were provided with such indifferent powder that against the walls of a castle they

were practically innocuous, and it was not until the invention of trunnions for cannon, and of bombards capable of throwing heavy spherical shot in the fifteenth century, that fortified places had anything to fear.

But long before 1327 the English castle had begun to show signs of falling into abeyance, in fact but very few new structures of that class were erected after the close of the thirteenth century, and those that did spring into existence no longer exhibited the overwhelming strength and powers of resistance which stamped the erections of the preceding century. When prosecuting his war with France, Edward III., in 1337, endeavoured to leave the Kingdom in as defensible a condition as possible during his absence, and with that object in view ordered the keepers of the Royal castles to put their respective charges into first-class order. In spite of this a report upon their efficiency a few years later revealed the fact that several were utterly unfit to withstand a siege. In 1322, when the incensed Edward II. raised forces to avenge the insult to his queen by Bartholomew de Badlesmere at Leeds Castle, and quickly captured that place, Tickhill, Warwick, Tutbury, and others, the ease

with which they fell into his hands indubitably proves that they were no longer in a thoroughly defensive condition. And this, be it remembered, was before the introduction of gunpowder.

The economic conditions prevailing in the fourteenth century were also in antagonism to the persistence and growth of castles in the land. Military feudalism was in its death-throes, and the laws passed in the reign of Edward I.—notably the statute of Quia Emptores—were undoubtedly responsible for it. The barons no longer held the same position as formerly when they dictated terms to their own sovereign, and although a recrudescence of the power of the military nobility occurred during the time of the Wars of the Roses, that struggle was in reality but duels upon a large scale between a number of nobles who had been successful in maintaining a semblance of their former power. The Statute of Winchester gave almost unlimited rights to the King, whereby he could summon the commons to arms if a baron proved recalcitrant. The baronial castle necessarily became an anachronism to a large extent, since its owner no longer had the power to fill it with numerous retainers, and

also because the King, by his overwhelming numbers, could easily capture it.

The art of war had also changed consequent chiefly upon the extraordinary efficiency displayed by the English archer, whereby he became supreme upon the field of battle: the development of this superb infantry was under the entire management of the Crown and, consequently, the King became immeasurably superior in striking strength to any individual baron. The advantage began to rest with him who could put the most efficient battalions in the field, and not as formerly with the one who owned the greatest number of castles. Combined with these conditions there was the indubitable fact that a castle had acquired the reputation of being connected with oppression of the people, resistance to lawful power, and a refuge from justice for the wrongdoer. This was entirely incompatible with the great reforms insisted upon by Edward I., and passed into law by parliament; law and order became the rule and not the exception, and the position of the castle grew anomalous.

With the ascendancy of an efficient administration of justice came the desire for com-



SKIPTON CASTLE, YORKSHIRE.

fort and a display of luxury, and probably no one who has become acquainted with the internal disposition of an early castle will qualify the assertion that the acme of discomfort and inconvenience must have prevailed within them. Consequent upon this alteration in the economic conditions of the nation, the need for the impregnable stronghold of the past ages ceased to exist, and in many parts of England, but more especially in the south and east, the existing structures were largely altered or added to in order to afford conditions suitable to the changed amenities of social life. These alterations in nearly every case were made at the sacrifice of efficiency, and many castles which had played a notable part in the history of the nation became merely the residences of their lords, who made no attempt to put them to their original uses in time of war. Arundel, the great midland castles of Warwick, Kenilworth, and many others, fall under this category.

So far as gunpowder is concerned the part which it played in causing the abandonment of the feudal castle is strangely varied and dependent upon local circumstances. A well-found castle with an efficient and adequate garrison,

supported by an army in active operation in the field, had no more to fear from an attack in the fifteenth century than it had in the thirteenth, perhaps not so much. Very few bombards of the period mentioned could throw stone shot weighing over 150 lbs., whereas the medieval trebuchet could hurl a missile of twice that weight, or even more, and to almost as great a distance. The effect of low-trajectory cannon upon castle walls in the fifteenth century under ordinary conditions may almost be left out of consideration, so small was the calibre. It is true that Sir Ralph Grey, when besieged in Bamborough Castle in 1464, was forced to surrender in a short space of time by the army of the Kingmaker, who used his basilisks, aspiks, serpentines, dragons, syrens, and sakers with excellent effect; but we may justly claim that this was an exception, the configuration of the ground enabling Warwick to place his pieces close up to the walls, while Grey could look for no effective relief from a sympathetic army outside. Ten years afterwards the Castle of Harlech, under the able governance of Davydd ap Ifan, held out against all the force that Edward IV. could bring to bear upon it, and was the last

of the castles garrisoned by Lancastrians to render up its keys.

But perhaps the greatest argument against the belief that the "venomous saltpetre" was the chief cause of the decline in castellation is that of the gallant resistance made by many of these old strongholds in the Great Civil War. At that time the newest of the castles was, perhaps, about two hundred years old and had not been constructed entirely for defence; the older structures were in many cases devoid of woodwork which had perished through age and neglect. Yet these ancient buildings, now once more called upon to play their part in deadly strife, in many cases showed a resistance to attack which was simply marvellous, sometimes, as in the case of Pembroke, defying the ordnance brought to bear upon them. If a Royalist army of respectable proportions happened to be in the vicinity of a beleaguered fortress, the Parliamentarians appeared to regard its reduction as an impossibility, and in the first place devoted their entire attention to the dispersal of the field force. It is true that the condition of the unmetalled trackways, which were dignified by the name of roads, at that time, presented almost

insuperable obstacles to the passage of heavy ordnance, and the advance of a cumbrous baggage train was at times an impossibility.

But even if cannon of respectable proportions could be brought against a castle in the Great Civil War, the effects produced were in many cases out of all proportion to the enormous trouble involved. Thus at the first siege of Pontefract Castle in 1644 a cannon throwing a 42-lb. shot was used in conjunction with another of 36 lbs. and two of 24 lbs., the least being 9 lbs., and yet the siege failed chiefly by reason of the small effect produced by the 1400 projectiles which were fired into it. Again although Scarborough Castle was quite ruinous in 1644 when its siege commenced, and in addition was ill-supplied with ammunition or food, yet it gallantly sustained a siege lasting for twelve months.

It may therefore be conceded from the foregoing that the assertion respecting gunpowder causing the disuse of the castle in the British Isles must be taken with a large degree of reservation, since many other causes have to be considered, and even those who maintain the assertion must admit that the reason assigned



IGHTHAM MOTE, KENT.

took an unconscionably long time in effecting its object.

In the very few castles which saw their origin during the fourteenth and fifteenth centuries in Britain, domestic comforts and attempts at effective defensive works appear to have run side by side, often to the almost total exclusion of the latter. The substitution of brick for stone masonry in many of these was in itself a startling change, but when combined with this, large and lofty apartments were introduced, many with magnificent carved and moulded wooden ceilings, windows of large dimensions filled with beautiful tracery characteristic of Perpendicular architecture, walls hung with rich tapestry and decorated with gorgeous heraldic devices and trophies of arms, costly furniture and other fittings betokening an advanced education in domestic requirements,—the feeling was borne in upon the minds of the nation that the feudal castle, as such, had seen its day, and that the age of the baronial residence and the manorial dwelling-house had superseded it.

In these later castellated residences the kitchens, larders, cellars, dining halls, residential rooms and general offices became matters of

supreme moment, the defensive works of secondary importance, but designed nevertheless with a view to impressiveness and an assumption of strength which they rarely possessed. Within these lordly halls the noble owners held high revel, while troops of servitors, henchmen, and servants of every degree swarmed in the passages and halls in marked contradistinction to the old time grim men-at-arms, bearded archers, and steel-clad retainers of the feudal fortress.

There was naturally a period of transition during which the characteristics of the Castle predominated over the domestic influences, and those which sprang into existence during the reigns of Henry IV. and V. very ably show this feature. To this intermediate period we may ascribe those structures which were chiefly reared by the spoils acquired upon the Continent by soldiers of fortune who " followed the wars," and returning to their native land built palatial residences for themselves, out of their lawful, or it may be, ill-acquired, gains. Many of these were based upon designs which the adventurers had seen abroad, thus our first example, Bodiam, is a replica of many castles which were to be found at the time of its erection in Gascony.

Bodiam Castle is one of the finest in Sussex, and certainly one of the most picturesque in England; it is situated upon the Rother, which here forms the boundary between Sussex and Kent. The building owes its origin to Sir Edward Dalyngrugge, who had served in France and Spain under the Black Prince with singular credit to himself and marked advantage to his worldly estate. A portion of this superfluous wealth was expended in erecting Bodiam Castle, which, while affording every comfort as a residence, possessed most of the essential qualities for effective defence.

It presents a singularly beautiful and romantic spectacle at the present time, the towers and enceinte being entire, while a wealth of foliage and the wide waters of the surrounding moat afford a *coup d'œil* seldom equalled and probably not excelled in England. The licence to crenellate dates from 1386; the building was erected in the middle of a lake connected with the river, thus forming a broad and deep moat. A causeway, defended by an ingenious system of bridges and small gateways, leads across the latter, and terminates in a small barbican, now partly dismantled; the entrance is between two tall

square towers which present beautiful examples of machicolation upon their summits. Upon the opposite, or south face, is the postern leading to the moat and defended by a massive square tower, being one of nine in all surrounding the enclosure. The interior is now simply an empty shell, all the domestic buildings having been destroyed by Sir William Waller in 1643, after the siege of Arundel, although the Chapel and the chief apartments are capable of being located. We have therefore simply the outer walls remaining of a particularly fine castle of the Perpendicular period.

The entrance consists of a vaulted passage with many openings for the discharge of missiles upon assailants while they were endeavouring to overcome the three portcullises and the massive wooden gate defending it. In addition to ordinary loopholes there are round holes for the discharge of harquebuses. The castle underwent a siege by the Earl of Surrey in the reign of Richard III. in consequence of a descendant of Sir Thomas Lewkenor, into whose hands it had passed, proving obnoxious to the King.

Shirburn Castle is also of the same type and very similar to Bodiam; it dates from the year



WRESSLE CASTLE, YORKSHIRE.

1377 and was erected by Warine de Lisle who had gained wealth and distinction under Edward III. It stands in the Chiltern Hills near Stokenchurch and is a large square pile surrounded by a broad moat.

Wressle Castle, Yorkshire. — The Castle of Wressle lies to the south-east of York, near the junction of the Derwent with the Ouse, the navigation of which it was probably designed to protect. Sir Thomas Percy, the brother of the first Earl of Northumberland, is reputed to have been the founder. It fell to the Crown, and Henry IV. granted it to his son John, Earl of Bedford, and after his demise to Sir Thomas Percy, son of Henry, the second Earl of Northumberland. The Percies seem to have maintained their Court in the Castle with a magnificence befitting their illustrious race, and during their occupation the Castle saw the most glorious portion of its history.

In 1642 and 1648 it was garrisoned by the Parliamentarians and shortly afterwards was ordered to be dismantled. Three sides of the quadrangle were thrown down, leaving only the south façade. It was in the possession of the Seymour family from 1682 to 1750, when it again

passed into the hands of descendants of the Percy family, and now is owned by Lord Leconfield.

The building originally possessed five towers, one at each corner and another over the entrance on the south side, which still remains, together with the curtain wall and flanking towers. These present a very imposing appearance, but the general effect of the ruins suggests the castellated mansion of the Perpendicular period more than the grim sternness of a medieval castle. The square corner towers appear singularly inadequate for an effective flanking fire, and no doubt the building relied for defence chiefly upon the broad moat which encompassed it upon three sides and the deep dry ditch defending the approach.

Hever undoubtedly owes its fame partly to its magnificent gatehouse, which forms by far the most impressive part of the structure, and partly to the rich store of human interest imparted by its intimate connection with the ill-fated Anne Boleyn. It was built in the reign of Edward III. by Sir William de Hever, whose daughter brought it to her husband, Lord Cobham. In the time of Henry VI., Sir Geoffrey Boleyn, Lord Mayor of London, an opulent mercer,



HEVER CASTLE, KENT.

purchased it, and added greatly to the existing buildings, the work being subsequently finished by his grandson, Sir Thomas, the father of Anne.

The latter was born in 1501, and brought up at Hever under a French governess. After she attracted the notice of the King, her father was created Viscount Rochford, and Earl of Wiltshire and Ormond, while Anne was made Marchioness of Pembroke. It was in the garden at Hever that Henry first saw her, and subsequently his wooing of that unfortunate queen occurred there. After the execution of Anne and her brother, the castle went to the Crown and was settled on Anne of Cleves. In 1557 Sir Edward Waldegrave purchased it, and it passed to Sir William Humfreys and subsequently to Sir T. Waldo, whose descendant is the present owner.

The Castle is surrounded by a double moat, fed by the river Eden; it is a small castellated house of the fifteenth century, the chief feature being the superb entrance, battlemented and machicoulied, and containing three portcullis grooves in the main passage. The buildings completing the rectangle are chiefly of the

Elizabethan period, but have been very extensively restored by the present owner.

Maxstoke is one of the very few castles which have come down to us without the expression "dismantled by order of Parliament" being applied to it. It affords us an idea of the beauty the face of England would present, so far as magnificent castles are concerned, if the forces of destruction and revolution had never been let loose upon our fair isle. It dates from 1346, when William de Clynton, Earl of Huntingdon, obtained licence to crenellate. The Duke of Buckingham owned and occupied it in 1444; he was killed at Northampton in 1460, and his son Humphrey, Earl of Stafford, having died of wounds received at the First Battle of St Albans in 1455, his grandson Henry succeeded him but was beheaded without trial at Salisbury in 1483. Edward Stafford, however, succeeded to the estates in the reign of Henry VII.; his death by beheading occurred on Tower Hill in 1521. Maxstoke came to the Crown but was given by Henry VIII. to Sir William Compton, from whose descendants it was purchased by the family of Dilke in whose possession it still remains.

The gatehouse is in excellent preservation,



MAXTOKE CASTLE, WARWICKSHIRE.

the entrance being flanked by hexagonal towers, while the archway contains the grooves for the portcullis, and also the old gates themselves, plated with iron and bearing the arms of the Stafford family. A fine groined roof is inside the gatehouse, while the battlements have an alur behind them. The walls of the enceinte and the four towers at the corners are in good preservation, and show marks of the wooden buildings formerly erected against them for accommodating the soldiers. The Chapel and a number of the domestic apartments are original, dating from the time of Edward III.

Raglan, one of the most imposing ruins in the British Isles, was erected shortly after 1415 by Sir William ap Thomas, who had returned rich in honours and also in worldly wealth from many a stricken field, the last being that of Agincourt. He married the daughter of Sir David Gam, and commenced the erection of the magnificent building which combines in such an excellent manner the characteristics of a mansion and a fortress. If either predominates it is undoubtedly the warlike portion since, presumably, the builder could not at once forget his bellicose proclivities. His son was made a baron by Edward IV. and

afterwards Earl of Pembroke, and was beheaded at Northampton, 1469. The Castle came into the possession of the Somersets in 1503, the ancestors of the present Duke of Beaufort. The fifth earl carried out extensive work upon the pile, but shortly afterwards the demolition of the Castle was ordered by the parliament. Probably the most striking feature of the Castle is the detached Keep lying to the left of the main entrance, and called the Yellow Tower. It is surrounded by a wide and deep moat, and was undoubtedly a formidable obstacle before being slighted. It underwent a vigorous siege in 1646, when Sir Thomas Fairfax assailed it with a large force. The garrison ran short of ammunition, and, the north wall being breached, a capitulation ensued.

Herstmonceaux Castle.—One of the finest examples of the later castles is Herstmonceaux, in Sussex, dating from the year 1440. It has been described as "the most perfect example of the mansion of a feudal lord in the south of England," and, when visited by Walpole in 1752, was in a perfect state of preservation; Grose, writing a few decades later, gives a vivid description of all the principal apartments, which seem to have

suffered but little at that time. Now, however, when there is some rumour prevailing of an intended restoration, the building is in ruins,—roofless, ivy-grown, and in many parts dismantled by the falling-in of roofs and floors. It is built of the small bricks then in use, two inches or less in thickness; they were brought to England from Belgium, strange to say the art of brick-making having apparently been lost since the departure of the Romans. Belgian workmen were also brought over to erect it.

Sir Roger Fiennes, an Agincourt veteran, was the founder, and probably the site had borne a previous fortalice. Like Bodiam, erected some half-century previously, the plan is quadrilateral, almost square, with four octagonal towers at the corners and three of pentagonal plan strengthening the curtain walls. The gateway is one of the finest and most impressive in existence; the towers which flank it rise over 80 feet in height, cylindrical at the upper parts and superposed upon 50 feet of octagonal bases, with smaller turrets rising still higher above them. A magnificent range of machicoulis with crenellation above protects the towers and the curtain between, the merlons being pierced with

oillets. A moat, long since dry, encircles the building, a bridge spanning it at the principal entrance. There are three tiers of cross loop-holes, and below occur openings for matchlocks to defend the bridge. With the exception of the grand towers of the south gateway and the shells of some adjoining buildings, there are only broken arches and shattered walls, piers, and buttresses now to be seen, and it is only by the description left by Grose and Walpole that the ichnography of the interior can be traced. Wyatt the architect is responsible for the vandalism committed, as he dismantled the Castle to furnish material for the owner's new residence adjacent.

Although Herstmonceaux has never undergone any struggles in the "fell arbitrament of war," yet painful memories cling to the ruins. Thomas Fiennes, the ninth Lord Dacre, succeeded to the estate at the age of seventeen. The youth had already laid the foundation of a brilliant career at Court when an escapade, planned by himself and some madcap companions, whereby they essayed to play the rôle of poachers upon a neighbouring estate, led to the death of a keeper whom they encountered. His three companions



HERSTMONCEAUX CASTLE, SUSSEX

were arrested and hanged for murder near Deptford; Dacre was also tried and condemned, and the sentence was duly executed at Tyburn in 1541, the young man being twenty-five years old at the time.

Tattershall Castle, on the Witham in Lincolnshire, is contemporary with Herstmonceaux, and constructed likewise of Flemish brick bonded with exquisite workmanship. The tower still standing contains four stories with a total altitude of 112 feet; large Gothic-headed windows occur filled with Perpendicular tracery, and these windows are repeated on a smaller scale in the four octagonal towers which clamp the angles of the building. Massive timber balks once supported the various floors, and a number of carved chimney-pieces are to be found. The walls are about 14 feet thick at the base, and many passages and apartments have been made in their thickness. The well in the base is covered by a massive arched crypt, upon which the Castle has been erected. But perhaps the most notable feature in this beautiful relic of the past is the grand and markedly-perfect system of machicolation combined with the bretasche, which is exemplified in the cornice

surmounting the tops of the curtain walls. Upon massive stone corbels is built a substantial stone wall pierced with square apertures for an all-round fire with various arms; in the floor of the alur are the openings for dropping missiles upon assailants at the base of the walls; above this again are the merlons and embrasures giving upon the battlement walk.

The Castle was erected by Ralph, Lord Cromwell, treasurer to King Henry V., whose vast wealth sought for an opening in which to display itself, and probably could not have done so more effectively than in the rearing of a magnificent pile of buildings of which but a small portion, the tower described, now remains. In its later years it suffered a partial dismantling during the Commonwealth period, followed by a rifling in the eighteenth century similar to that which overtook the sister castle of Herstmonceaux.

After the middle of the fifteenth century castles were no longer built, and we have to look to the fortified manor-house such as was designed by the Lord Cromwell above mentioned at Wingfield, Derbyshire, or that at Exburgh in Norfolk; these when surrounded by moats were capable of being placed in a good state of defence, and many



PENSHURST PLACE, KENT.

a thrilling tale is told of the sieges they underwent during the Civil War when the stout resistance they made was nearly or quite equal to the defence of the massive ramparts and cyclopean bastions of the earlier castle-builder.

Penshurst Place.—This was originally an embattled mansion of the fourteenth century, and gradually expanded by constant additions into an excellent example of a combined castle and a manorial dwelling-house. The licence to crenellate is dated the fifteenth year of Edward III., and stands in the name of Sir John de Pulteneye. This opulent knight erected a stately mansion in the form of an irregular square as to plan. It reverted to the Crown in the reign of Henry VI. and was held by the Duke of Bedford, Regent for a time, and then by his brother, Humphrey, Duke of Gloucester. The Staffords held it afterwards, but at the decease of the Duke of Buckingham Edward VI. gave it to Ralph Fane and then to Sir William Sydney, one of the heroes of Flodden Field. Its associations with Sir Philip Sydney form one of its chief claims upon the public. The spacious Hall measures 60 feet in length by the same in height; it is 40 feet wide, and is a grand example of

fourteenth-century architecture. The beautiful windows reach from the floor to a considerable height, the roof is open, there is a minstrels' gallery, and an elaborate arrangement for the fire in the middle of the Hall. Adjacent is a range of buildings much altered in the Elizabethan period, containing state rooms, the Queen's drawing-room, etc. Portions of the wall of enceinte are to be found upon the south and east.

Ightham Mote.—This building is undoubtedly one of the most perfect examples of the combination of domestic convenience with an efficient system of defence to be found in England. It stands about two miles from Ightham village in Kent in a deep hollow, through which runs a rivulet flowing into the moat surrounding the House, from which the latter takes its name. Ivo de Haut possessed the Mote in the reign of Henry II.; it reverted to the Crown for a time in the reign of Richard III., but was restored to the family, and subsequently passed through the hands of many owners.

The House appears to be of three distinct periods, Edward II., Henry VII., and Elizabeth. The Hall is of the first period; it has a slender stone arch to carry the roof and contains many

ancient features; some of the original shingles, for example, are still in existence, though a modern roof covers them. Other objects are a Chapel, original, and the Gateway Tower with the gateway itself and the doors.

There are many examples in England of the simple manorial hall of purely domestic type whose owners found it expedient, at some critical period, to fortify in some manner, and these additions are of the greatest interest to the antiquarian. Perhaps the best example to be found is that of Stokesay, near Ludlow, which is a unique specimen of a small mansion of the thirteenth century subsequently fortified. The licence is dated 1291, and a stone wall is mentioned; only a few yards remain of this.

A wide ditch surrounds the area, and a high tower, similar to two towers joined together, affords the required defence. It is embattled, the merlons being pierced, while the embrasures have the ancient shutters still depending. It dates from the end of the thirteenth century. The Hall stands adjacent and vies with that at Winchester in being the most perfect example of a thirteenth-century hall remaining to us. It is about 50 feet long by 30 wide and over

30 feet in height. The windows are in the E.E. style, and the corbels carrying the roof are of the same period. The lord's apartment overlooked the Hall. It has been occupied by the de Says, the Verduns, and ten generations of the Ludlows, the first of whom built the crenellated parts. The prompt surrender of the Cavalier garrison to the Parliamentarian army is no doubt responsible for the fact that no destruction of the House occurred at that critical time.

The examples given of the Castellated Mansion and fortified Manor-House are necessarily meagre in number, and many more, such as Broughton Castle in Oxfordshire, Sudley in Gloucestershire, Wingfield Manor, Derbyshire; Hilton, Durham; Hampton Court, Hereford; Whitton, Durham, etc., call for remark if the exigencies of space permitted.

CHAPTER X

THE CASTLES OF SCOTLAND

Prehistoric and other Earthworks.—The numerous remains of strongholds and defensive works of a prehistoric character readily fall as a rule under one of the divisions used in describing the English examples. They are usually of a circular or oval formation, and where irregular the shape has been determined by the site.

The Hill-forts, known as Vitrified Forts, are, however, not represented in England, and, although found in a few places upon the Continent, appear to have been chiefly developed in Scotland. By some means, not definitely determined as yet, the walls of these strongholds have been subjected to intense heat, whereby the stones have become plastic, and amalgamated when cool into one coherent mass. It is unnecessary to dilate upon the obvious advantages which

a homogeneous defence of this nature would possess. These forts chiefly lie in a broad band between the Moray Firth and Argyle and Wigtown, and are generally constructed of igneous rocks; when provided with a suitable flux of alkali in the form of wood-ashes or sea-weed a comparatively moderate heat would be sufficient to cause fusion. The walls of Vitrified Forts are of about half the thickness of un-vitrified, and appear to belong to the Late Celtic Age.

Brochs are also peculiar to Scotland. They are massive, tower-like buildings, chiefly occurring in the northern counties and upon the islands; they are remarkably similar in outline and construction, and they have been ascribed chronologically to the period immediately before or after the Roman occupation of Britain, and as being essentially Celtic. The Broch of Mousa is generally believed to be the most perfect example extant; it is in Shetland, and consists of a wall 15 feet thick enclosing a court 20 feet in diameter. The wall is about 45 feet in height and contains a solitary entrance, narrow and low. In the thickness of the wall, and approached by three internal openings, are chambers, while

a spiral staircase leads upwards to where passages constructed in the walls are served by the stairway. Other Brochs which have been examined appear to possess a similarity of plan, but some have subsidiary defences in the shape of external walls, ramparts, and fosses; thus the example at Clickamin, Lerwick, was surrounded by a stone wall. That found upon Cockburn Law, and known as Odin's, or Edin's Hold, is of note by reason of the double rampart of earth surrounding it. It is one of the largest as yet discovered, the wall being 17 feet thick and the area 56 feet wide. Probably the many hut circles which surround this Broch are of later date and were formed from its ruins. The great thickness of the wall is exceeded, however, by the Broch at Torwoodlee, Selkirkshire, by 6 inches.

With the advent of the historical period firmer ground is reached, and there are numerous evidences that the Motte and Bailey Castle was introduced at an early period into Scotland. During the second half of the eleventh century this was the prevailing type as in England.

It has been found possible to divide the era

of castellation proper in the northern kingdom into four distinct periods :

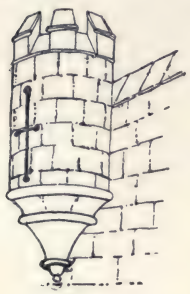
First Period, 1100–1300.—The roving spirit and warlike disposition of the Normans prompted their adventurers to penetrate into the fastnesses of the North, where the innovations they introduced made them acceptable in the main to the inhabitants. They taught the latter how to raise towers of a design based upon the Rectangular Keep, with thick cemented walls, and many of the great fortresses, such as Edinburgh, Stirling, and Dumbarton, originated at this time. The early type of Keep was quadrangular in plan with towers at the angles, which were sometimes detached from the main building and placed upon short curtain walls; but some were naturally modified or specially adapted to the site like those of Home and Loch Doon. The use of water as a defence was recognised at an early stage ; some towers were placed on islands in lakes, and most of them were furnished with moats and ditches. At this period castles were seldom placed upon high promontories. The workmanship was as a rule poor, rough, and crude, but some exceptions occur like Kildrummie and Dirleton.

Second Period, 1300–1400.—The years of this century were marked in Scotland by anarchy, war, and bloodshed, which devastated the kingdom and placed the arts of peace in complete abeyance, while poverty was universal. The period was consequently unfavourable for the erection of Scottish castles upon a large scale, but many scores of small Keeps sprang into existence. Bruce was antagonistic to the building of large and roomy castles, arguing that their capture by an invader would give him a standing in the country which otherwise he would not possess.

The towers erected were based upon the Norman Keep; they were of stone throughout, so that their destruction by fire was impossible. Their walls were so thick and massive that restoration after a siege was easy. The basement was always vaulted, and was intended for storage purposes and the herding of cattle in an emergency. As a general rule it had no interior communication with the upper floors, but trap-doors are not unknown. The entrance to the building was on the first storey through a narrow door reached by a ladder; it gave upon the Hall, the chief apartment, where all dined

in common, and the household slept, a subsidiary half floor being constructed above for this purpose.

The second floor was the private apartment of the chieftain and his family, and was also provided with a wooden gallery for sleeping purposes. The roof was a pointed arch resting solidly upon the walls and covered with stone slabs. At the angles of the building bartizans were usually built, although rounded corners like those at Neidpath and Drum sometimes occur. In the massive walls spiral staircases, small rooms, cupboards, and other conveniences were arranged. Round the Tower a wall was generally erected, within which the stables, offices, and kitchens were built. In the wall of the Tower itself, and sometimes below the level of the ground, the universal "pit" or prison was built, ventilated by a shaft carried upwards in the thickness of the wall. At times the battlements were provided with parapets resting upon corbels but executed in a crude manner.



BARTIZAN.

The century in question saw numerous castles



BOTHWELL CASTLE, LANARKSHIRE.

of this type come into existence, all based upon the same plan, that of the king differing only in size from that of the small chieftain. The largest are from 40 to 60 feet square, but the majority are much smaller. These Keeps formed nuclei for subsequent additions as at Loch Leven, Craigmillar, Campbell, and Aros, and many of them served as ordinary residences down to the seventeenth century, long after the tide of war had passed.

Third Period, 1400–1550.—With the coming of peace and a period of commercial and industrial prosperity, the nobles of Scotland were able to observe the progress of castellation around them in England and France, and began to adopt the styles which they found in those countries. A type of castle appeared based like that of Bodium upon a French ideal, — the building of a high embattled wall strengthened with towers around a quadrangular space. This plan, derived from the Concentric ideal, was adopted for the largest castles, such as Stirling, which is the most perfect example of a court-yard plan, and Tantallon.

In the smaller castles the Hall is placed in the centre with the kitchen, pantry, and buttery

adjoining it, and the lord's solar and private apartments at the daïs end. The wine-vaults and cellars are built beneath, while the bedrooms occur above. In contrast to the English buildings of the period, the question of defence was the dominating idea in spite of the altered conditions of better living and increased luxury. Many plain and simple Keeps were also built during this period.

Fourth Period, after 1550.—The development of artillery led to alterations being made in castellation, while the progress of the Reformation gradually introduced the fortified mansion and Manor-House. Many small Keeps, or Peel Towers, were built, however, chiefly on the Border. Ornamentation up to this period had been conspicuously absent, but now it assumed a very high importance. Corbelling became almost a mania, — floors, windows, parapets, chimneys, and other details projecting to an excessive distance in order to enhance the effect. The bartizans were covered with high conical roofs, and turrets similarly ornamented became a prominent style. The accommodation in the upper floors was greatly increased when compared with the basement, through the excess

of corbelling. Gables were furnished with crow-steps, while machicolation became at times almost fantastic. Gargoyles shaped like cannon in stone are a marked feature of the period.

Bothwell Castle, Lanarkshire (*1st Period*)

Bothwell Castle is generally termed the grandest ruin of a thirteenth-century castle in Scotland. It belonged in the thirteenth century to the Murray family; was captured by Edward I. and given to Aymer de Valence, Earl of Pembroke. The English had possession until the year 1337 when, after capturing it, the Scots dismantled it. From the Douglas family it passed by marriage to the Earls of Home. It is placed upon a rocky promontory above the Clyde, and consists of an oblong courtyard with high curtain walls and strengthening towers, round or square, while a large circular donjon lies at the west end. The latter bestrides the enceinte and is separated from the bailey by a moat; it is of noble proportions, 60 feet in diameter and 90 feet high, with walls 15 feet thick. The Tower forcibly suggests that at Coucy in many particulars. The Hall and

various other apartments occupy the eastern portion of the Bailey.

Neidpath Castle (*2nd Period*)

Neidpath Castle is situated upon elevated land overlooking a winding of the Tweed. It was built upon the L plan, probably in the fourteenth century, being a main central tower of the Keep type with a square projection of considerable size attached to one side. The walls are 11 feet in thickness and the original door was on the basement floor facing the river, a departure from the general rule. A spiral stair gave access to the upper storeys. The Tower was originally of enormous strength, being really two immense vaults superposed upon each other, but other, wooden, floors have been inserted between. The parapet and corners are rounded similar to those at Drum Castle. It was greatly altered and added to in the seventeenth century. No particular history attaches to the building, which belonged to the Hays of Yester for centuries; it has only undergone one siege, that by Cromwell, when it surrendered after a short defence.



NEIDPATH CASTLE, PEEBLES.

Edinburgh Castle (*3rd Period*)

The site of Edinburgh Castle has undoubtedly been occupied by some description of fortress from the most remote antiquity. The Romans occupied it and subsequently Malcolm Canmore fortified it as an aid towards keeping the English out of Scotland. In 1291 Edward I. besieged and took it in fifteen days; he recaptured it again in 1294. In 1313 it fell into the hands of Bruce by a daring escalade, and was stripped of its defences. Edward III. rebuilt it, and placed a strong garrison there, but the Scots took it four years later. David II. refortified it and rendered it so strong that neither Richard II. nor Henry IV. had any success in their attempts to take it. Since that period it has undergone a number of sieges.

It is built upon the courtyard plan, and is one of the survivors of the four chief fortresses in the country, the others being Stirling, Roxburgh, and Berwick.

The moat at the entrance is now dry and filled up, and the Gateway there is modern. The Argyle Tower (sometimes called the St. David's Tower) is a portion of the old castle, as are also

the ruins of the Wellhouse Tower, while St. Margaret's Chapel is the oldest building and also the oldest church in Scotland, containing Early Norman work and probably also Saxon. The general aspect of the Castle suffers much from a picturesque point of view by the addition of the great demi-lune battery and ranges of modern buildings.

Stirling Castle (3rd Period)

The commanding rock upon which Stirling Castle is placed was originally an old hill fort, but in the twelfth century was one of the four chief castles. Thus in 1304 it held out for three months against Edward I. and a powerful army. So important was it considered that Edward II. attempted to relieve it, and thus led to Bannockburn. Baliol occupied it, and King David only captured it after a long and obstinate siege. At the Stuart period it became a Royal Castle and the favourite residence of the Scottish kings. The present walls are undoubtedly raised upon the old foundations, but, so far as antiquity is concerned, the oldest part of the Castle remaining is the Parliament Hall opening



EDINBURGH CASTLE, FROM THE TERRACE OF HERIOT'S HOSPITAL.

from the Inner Ward which is of late Perpendicular architecture. The Palace is of the Renaissance, and dates from 1594.

Dunnottar Castle, Kincardineshire (*3rd Period*)

One mile south of Stonehaven stands Dunnottar Castle, upon a flat platform of rock with the North Sea washing three of the precipitous sides. A small isthmus, not much above the level of the sea, connects it to the mainland.

The oldest parts of the Castle date from *c.* 1382. The entrance is at the base of the rock upon the land side, where an outwork of remarkable strength is placed. After ascending a steep incline a tunnel 26 feet long is reached, also defended, and a second similar defence occurs beyond, thus the approach was of an extremely formidable character.

The Keep stands at the south-west corner, and is of the L shape four stories in height, and built early in the fifteenth century. The stables and domestic buildings are of a later date, and arranged round part of an irregular courtyard. The Castle, although credited with being one of the most impregnable in Scotland,

and to which the Scottish regalia was entrusted for safe keeping during the Commonwealth, was captured by Sir William Wallace in 1297, whose troops scaled the precipices and put the English garrison of 4000 men to the sword. In 1336 Edward III. refortified it, but the Scots took it as soon as he had left the kingdom. General Lambert blockaded the Castle in 1652, and eventually captured it.

Tantallon Castle (*3rd Period*)

Tantallon Castle is of the courtyard type, similar to Caerlaverock and Doune, and was erected about the end of the fourteenth century. Situated upon a rocky precipitous site, with three sides washed by the North Sea, it was only imperative to construct defences upon the fourth or west side. A deep ditch cut in the rock, curtain walls 12 feet thick and 50 feet high, battlemented, with a level court in front, beyond which was another deep ditch,—these were the defences deemed all-sufficient to baffle intruders. The Keep also acted as a flanking defence to the curtain walls, and contained the only entrance, which passed



DUNNOTTAR CASTLE, KINCARDINESHIRE.

completely through it. Many traces exist of the work carried out in the early part of the sixteenth century in the endeavour to make it impregnable to artillery. The buildings now occupy only two sides of the interior quadrangle, the rest having been dismantled.

In the rich history of the Castle we find that in 1528 James V. invested it with 20,000 men and a formidable battering train, the structure itself being supplied with large artillery. The siege lasted twenty days and proved unavailing, the great thickness of the walls resisting the efforts of the gunners. It underwent another siege in 1639 when the Earl of Angus made a stand in it against the Covenanters. General Monk invested it and found after two days that his mortars had no effect; he then tried heavy siege guns which breached the wall, but the garrisons retreated into the central tower where they were safe, and were allowed to capitulate upon good terms. The fortress fell into ruin in the beginning of the eighteenth century.

CHAPTER XI

THE SIEGE AND DEFENCE OF A MEDIEVAL CASTLE

A WORK upon castellation would undoubtedly be incomplete if it omitted to deal with the interesting subject of the means by which the medieval knight defended his castle, and of the methods he employed for attacking his neighbour's, or an enemy's town, whether in a private feud or legitimate warfare.

Through the almost universal habit of perusing medieval romances the general public has formed a mental picture of the hero and his followers riding round a castle and summoning it to surrender, or challenging the garrison to emerge from their retreat and essay mortal combat in the open. As the engineer and captain of the sappers and miners, the director of the artillery, the designer of movable towers, and the general head of the various artifices

calculated to bring the besieged to their senses, the hero is less well known.

The *coup de main* method of attack has probably been the same in most ages, and undoubtedly was the chief means resorted to by primitive man. His missile weapons during the Stone, Bronze, and Early Iron Ages were of no use against earth ramparts crowned by thick palisading; sling, stones, arrows, and spears were only efficacious against the bodies of his enemies, and hand-to-hand combat was therefore a necessity. Hence we may imagine a concentration against a presumably weak point, a sudden rush, the plunge into the dry ditch and a rapid scramble up the scarp towards the palisades under a shower of arrows, stones, and other missiles; the mad escalade of the defences surmounting the earthwork and the fierce resistance of the defenders, followed by a successful entry or a disastrous repulse and retreat.

Precisely the same course was pursued in the medieval period when a rapid bridging of the moat by planks and beams would be attempted, scaling ladders would be reared, and, protected by their shields from the rain of missiles, the assailants, covered by their archers' fire of arrows

and bolts upon the ramparts, would mount their ladders and attempt to effect a lodgment upon the walls. And, although weapons and conditions have changed, the assault to-day is made upon the self-same methods.

If, instead of the *coup de main*, a sustained siege is decided upon the knight will order his "gyns" to be brought up to the front, and large and heavy ones to be built upon the spot. From the time when Uzziah "made in Jerusalem engines, invented by cunning men, to be on the towers and upon the bulwarks, to shoot arrows and great stones withal," [1] down to the invention of cannon, the ingenuity of man has been exercised in devising machines for hurling missiles to a distance.

The Greeks, Romans, and other nations of antiquity brought them to perfection, and marvellous results were obtained in ancient sieges; the vivid account by Plutarch of the great engines used at the attack upon Syracuse, B.C. 214-212, reads almost like romance. Caesar frequently mentions this artillery, and especially the portable balistae for throwing arrows and casting stones; they were fitted with axles and

[1] 2 Chron. xxvi. 15.



TANTALLON CASTLE, HADDINGTONSHIRE.

wheels and manœuvred like batteries of cannon at the present day. Larger engines were constructed as required like those of the medieval period.

The ancient engines were distinct from those of a later age in depending for their efficacy upon the forces of tension and torsion as compared with that of counterpoise in the middle ages. The art of preparing the sinews of animals so as to preserve their elastic powers was known to the ancients, and great bundles so treated were utilised in different ways in the various engines. Experiments on sinews, ropes of hair, and other materials at the present day have proved that loss of elasticity soon occurs, whereas we learn that such was not the fact in classical times with their special method of preparation. By fixing an endless skein in a suitable frame, stretching it tightly and then twisting the skein in the centre by means of a beam of wood, the necessary torsion was obtained; if a missile were placed upon the beam when drawn back and the beam released, the projectile would be hurled to a distance proportionate to the velocity of the arm and the weight of the missile.

The principle may readily be gleaned from the accompanying diagram which exemplifies

the two vertical skeins used in a portable balista for throwing arrows; by being fixed in a suitable frame an action like that of the bow could be obtained. By using immense coils of twisted sinew the nations of antiquity, and especially the Greeks, threw stones weighing 50 lbs. or more to a distance of from 400 to 500 yards, and as a general rule with marvellous accuracy, while lighter missiles are stated to have been hurled to between 700 and 800 yards. These engines received the general name of "catapults," although the Greeks generally referred to them under the term "tormentum," in reference to the twisted sinews, thongs, and hair, of which the skeins were made. Broadly speaking, catapults shot darts, arrows, and the falarica,—a long iron-headed pole; balistas projected stones or similar missiles, though the names are often interchanged by the chroniclers. Some time after the fall of the Roman empire the secret of preparing the sinews was lost.

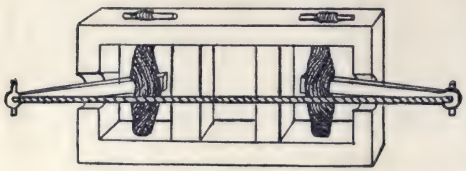


DIAGRAM ILLUSTRATING THE PRINCIPLE OF CONSTRUCTION IN CLASSICAL ENGINES.

The Trebuchet.—Another force was called into



STIRLING CASTLE, STIRLINGSHIRE.

play for medieval artillery. This was the counterpoise, or gravitation, and the principle upon which all large engines or "gyns" were constructed during the middle ages. A long wooden arm was pivoted in a framework so that a short and a long portion projected upon either side; to the shorter part a great weight in a swinging cradle was fixed which necessarily raised the longer arm to the vertical position. If the latter were drawn backwards and downwards the great weight was accordingly raised, and upon release the long arm would sweep upwards in a curve and project any missile attached to it. By fixing a sling of suitable length to the arm the efficiency was immensely increased (*see* Title-page). Such was the principle of the "trebuchet," the enormous engines which carried devastation and destruction to medieval castles. The French are said to have introduced these in the twelfth century, and by the end of the thirteenth they were the most formidable siege engines of the time.

The transition period in England between the classical weapons and the trebuchet was the twelfth century and the early part of the thirteenth. The veterans from the crusades undoubtedly introduced the torsion and tension engines, but

found that the home-made article could not compete in efficiency with the Oriental examples and therefore the advent of the trebuchet was welcomed. Roughly speaking, the original balista or catapults depending upon torsion, and throwing shafts rather than balls, were not so frequently in use as those engines which depended upon tension and threw heavy stones. In the early part of the thirteenth century the balista catapult came into vogue once more; it was of the cross-bow type, and at the end of the century was called the espringale and mounted on wheels.

The counterpoises used in large trebuchets weighed sometimes between 8 and 9 tons; the throwing arm was often 50 feet in length, and the engine could hurl a projectile weighing between 2 cwt. and 3 cwt. to a distance of about 300 yards. Dead horses were at times sent whirling over the battlements into a besieged town, while casks of matter of an offensive character and likely to breed pestilences were common missiles. But the chief use and purpose of the trebuchet was the smashing-up of bretasches; the pounding of the battlements and upper works to facilitate escalades; the filling up of the moat in selected places by

throwing large quantities of earth, stones, etc., into it and against the walls, and, occasionally, to hurl some unfortunate envoy back again into a town or fortress when the messages he carried were distasteful to the besiegers. In a medieval MS. full directions are given for trussing a man intended for use as a projectile.

Camden states that at the siege of Bedford Castle by King John one of the mangonels, *i.e.* trebuchets, threw millstones into the castle. He mentions seven great machines being at work at one time. Again, when Henry III. besieged Kenilworth, in 1266, stones of extraordinary size were used as missiles; some are still preserved at the Castle and two are at the Rotunda, Woolwich, the diameters being $18\frac{1}{2}$ inches and $16\frac{1}{4}$ inches; the weight 256 lbs. and 165 lbs. respectively. At Pevensey Castle catapult stone shot of 144, 156, and 241 lbs. respectively have been discovered. The great trebuchet constructed by Edward I. for the siege of Stirling Castle cast balls weighing between two and three hundredweight. The several parts of this great machine were sent by sea, but the Castle surrendered before its efficacy could be tried. The King was annoyed that this, his pet device, the

" War-Wolf," as it was termed, had not had an opportunity, and therefore ordered the garrison to remain within while he took a few " pot-shots " at their defences.

Such projectiles would almost demolish a house, and were nearly as formidable as modern shells; their great weight would batter every portion of a medieval castle except the very thickest of walls. The platforms of earth thrown up by besiegers to sustain their great engines remain in many places intact to-day; thus round Berkhampstead Castle are eight, upon which the trebuchets of the Dauphin were erected in 1216, when he battered the castle into submission in about a fortnight. The terms mangonel, petrary, balista, onager, scorpion, perrier, catapult, etc., when used by historians of the middle ages, generally apply to the trebuchet and its varieties, large and small.

The Arblast, Espringale, and Spurgardon were engines based upon the crossbow or tension principle; some were of considerable size and threw huge bolts tipped with iron. Another and a common use was to convey ignited incendiary matter into the enemy's quarters by their means. They were mounted upon towers, curtain walls,



RAISING THE PORTCULLIS.

and in the baileys, while in the open when placed upon wheels they served the purpose of field-pieces.

The Ram, based upon the weapon used by the ancients, was in frequent use. The working parts and the men manipulating it were protected by a pent-house called the "Snail," or "Whelk," having a roof of considerable thickness. In this house it was suspended by chains and pulled backwards and forwards by hand or mechanical appliances; when released, it smashed the stones in the wall to powder, so that they could be subsequently removed from the defences. To mitigate the effects the besieged let down mattresses, bags of wool, and coiled rope mats by chains from the ramparts.

The Terebra.—A machine based upon the classical *terebra* was also in use. It consisted of a heavy beam which could be rotated; the iron head being furnished with a spike of square section was inserted in a joint into which it bored its way, breaking up the surrounding stones and facilitating their removal.

The Cat, or Sow, was in constant use for mining and underpinning walls. It was a covered house upon wheels, with an enormously strong roof calculated to withstand the heavy

stones, beams of wood, hot water, molten lead, and spiked poles which were invariably launched from the battlements for its destruction. Under its cover the besiegers tunnelled beneath the walls, which they supported with woodwork until their task was completed; by starting a conflagration in the chamber thus excavated the supports were consumed and the wall was breached. At other times the stones, previously shattered or loosened by the ram or the terebra, were removed until the wall above was incapable of bearing its own weight. Mining, like other operations, had to be carried out with discretion and was undoubtedly a precarious operation. Thus in the siege of Dryslwyn Castle, Carmarthenshire, in the time of Edward I., Lord Stafford and other leaders lost their lives by a sudden collapse of the walls they were undermining. The mine was often met by a counter-mine of the garrison as in modern warfare.

The Beffroi, Belfry, or Movable Tower was a machine for facilitating the capture of fortified positions. It could be built upon the spot or carried from place to place in pieces. When mounted upon wheels it was pushed forward towards the walls, the object being to give the

assailants the same advantage of height which was shared by the besieged. From the upper platform the archers could command the battlements and approaches; those in lower stages sent their missiles into loopholes and other openings; in the lowest stage a ram was often mounted. One feature of its construction was a hinged platform which fell outwards upon the battlements and over which the assailants endeavoured to enter the fortress. The besieged hindered the approach of this terror by digging pitfalls for the wheels, shooting incendiary missiles, making sallies for its destruction by fire, or concentrating such a body of men upon the walls that none could live under the hail of missiles poured into it.

The methods of assailing a castle thus enumerated were, as a rule, put into operation at the same time and supported one another. Thus in the siege of Bedford Castle, defended by the followers of Faukes de Breauté, in 1224, the siege was carried out by King Henry III. in person. Two wooden Beffrois were made and advanced towards the walls,—these were occupied by longbowmen and arbalestiers; sappers approached the walls and undermined by means

of a Cat; seven trebuchets cast their ponderous projectiles against, or into, the castle without intermission night and day, while lesser artillery hurled lead-covered stones, darts, bolts, and other missiles among the defenders upon the walls, or through the oillets and louvre-covered windows. The barbican was taken and then the outer bailey; a breach in the defending wall gave admission to the inner bailey, and when, by judicious sapping, one portion of the great Shell Keep sank and produced a wide breach, the castle was surrendered.

In medieval manuscripts we meet with many illustrations of petardiers hurling vessels containing Greek fire upon the various engines attacking a castle or town, and perhaps this terrifying missile deserves more notice than has hitherto been paid to it. Introduced from the East during the time of the Crusades it was used with other incendiary bodies, but as no great objects were specially achieved by its use in our islands, or rather, as chroniclers do not make special mention of such results, we are probably justified in thinking that the effects were more of a terrifying character than of actual effectiveness in besieging or defending a castle.

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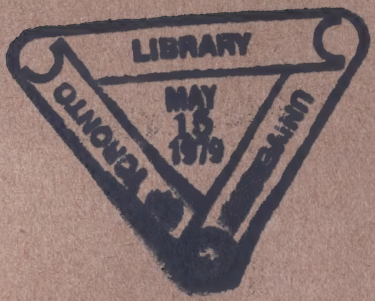
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